=> d his ful

FILE 'REGISTRY' ENTERED AT 17:00:30 ON 30 JUN 2006

L15 STR

L17 7 SEA SSS FUL L15

FILE 'HCAPLUS' ENTERED AT 17:03:52 ON 30 JUN 2006

L19 4 SEA ABB=ON PLU=ON L17
D STAT QUE L19
D IBIB ABS HITSTR L19 1-4

L21 57 SEA ABB=ON PLU=ON "CHOO H"/AU OR ("CHOO H Y"/AU OR "CHOO H Y P"/AU) OR ("CHOO HEA YOUNG"/AU OR "CHOO HEA YOUNG P"/AU OR "CHOO HEA YOUNG PARK"/AU)

L22 445 SEA ABB=ON PLU=ON "CHANG HYEUN WOOK"/AU OR CHANG H/AU OR CHANG H W/AU

L23 142 SEA ABB=ON PLU=ON "YOON JU"/AU OR "YOON JU HEE"/AU OR YOON J/AU OR YOON J H/AU

L24 56 SEA ABB=ON PLU=ON L21 NOT L19
D IBIB ABS L24 1-57

L25 0 SEA ABB=ON PLU=ON (L22 AND L23) NOT (L19 OR L24)

L26 131930 SEA ABB=ON PLU=ON LEUKOTRIENE(W)RELATED(W)DISEASE OR ?ASTHMA OR ?PERTUSSIS OR ?PSORIASIS OR ?ARTHRITIS OR INFLAMMATORY(W)BOWEL(W)DISEASE OR CYSTIC(W)FIBROSIS OR ?BRONCHITIS OR ?GOUT OR ?SEPSIS

L27 72145 SEA ABB=ON PLU=ON CARDIAC(W)ANAPHYLAXIS OR CEREBROVASCULAR(W)CONVULSION OR ?ISCHEMIA OR ALLERGIC(W)RHINITIS

L28 71764 SEA ABB=ON PLU=ON LEUKOTRIENE? OR ?ASTHMA OR "RESPIRATORY SYSTEM, DISEASE"/CV OR "LUNG, DISEASE"/CV OR "BRONCHI, DISEASE"/CV OR ASTHMA/CV OR "BRONCHIAL ASTHMA"/CV OR ANTIASTHMATICS/CV OR BRONCHODILATORS/CV

L29 47755 SEA ABB=ON PLU=ON "LEUKOTRIENE ANTAGONISTS"/CV OR ?BROCHI? OR ?PERTUSSIS OR "WHOOPING COUGH"/CV OR PERTUSSIS/CV OR ?PSORIASIS OR "SKIN, DISEASE"/CV OR PSORIASIS/CV OR "PSORIASIS VULGARIS"/CV OR "SKIN (L) PSORIASIS"/CV

L30 48508 SEA ABB=ON PLU=ON ?ARTHRITIS OR 'RHEUMATIC DISEASES'/CV OR ARTHRITIS/CV OR 'JOINT, ANATOMICAL (L) DISEASE, INFLAMMATION'/CV OR 'JOINT, ANATOMICAL (L) INFLAMMATION'/CV OR GOUT/CV OR 'RHEUMATOID ARTHRITIS'/CV OR ANTIARTHRITICS/CV

L31 20765 SEA ABB=ON PLU=ON INFLAMMATORY(W) BOWEL(W) DISEASE OR 'INFLAMMATORY BOWEL DISEASE'/CV OR 'INTESTINE, DISEASE (L) INFLAMMATORY'/CV OR CYSTIC(W) FIBROSIS OR 'CYSTIC FIBROSIS'/CV OR 'FIBROCYSTIC DISEASE'/CV

L32 27581 SEA ABB=ON PLU=ON ?BRONCHITIS OR BRONCHITIS/CV OR 'BRONCHI, DISEASE (L) BRONCHITIS'/CV OR 'INFLAMMATION (L) BRONCHITIS'/CV OR ?GOUT OR ?SEPSIS OR SEPSIS/CV OR "SEPSIS AND SEPTICEMIA"/CV OR SEPTICEMIA/CV OR BACTEREMIA/CV OR ENDOTOXEMIA/CV OR PARASITEMIA/CV OR VIREMIA/CV

L33 11011 SEA ABB=ON PLU=ON CARDIAC(W) (MYOISCHEMIA OR ANAPHYLAXIS) OR "CEREBROVASCULAR(W) CONVULSION OR ANAPHYLAXIS"/CV OR ?ANAPHYLAXIS OR "ANAPHYLAXIS (L) CARDIAC"/CV OR "HEART(L) ANAPHYLAXIS"/CV OR "CARDIAC ANAPHYLAXIS"/CV OR "HEART DISEASES (L) ANAPHYLAXIS"/CV

L34 119492 SEA ABB=ON PLU=ON ?ISCHEMIA OR ISCHEMIA/CV OR "BLOOD VESSEL, DISEASE (L) ISCHEMIA"/CV OR "BLOOD VESSEL (L) ISCHEMIA"/CV OR "ISCHEMIA CARDIOVASCULAR SYSTEM"/CV OR "ANTI-ISCHEMIC AGENTS"/CV OR CIRCULATION/CV

L35 3821 SEA ABB=ON PLU=ON ALLERGIC(W) RHINITIS OR "ALLERGIC RHINITIS"/CV OR "ALLERGY (L) ALLERGIC RHINITIS"/CV OR "INFLAMMATION (L) ALLERGIC RHINITIS"/CV OR "NOSE, DISEASE (L) ALLERGIC RHINITIS"/CV

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L36          24 SEA ABB=ON  PLU=ON  (L22 OR L23) AND (L26 OR L27 OR L28 OR L29
                OR L30 OR L31 OR L32 OR L33 OR L34 OR L35)
L37          23 SEA ABB=ON  PLU=ON  (L25 OR L36) NOT (L19 OR L24)
                D STAT QUE L37
                D IBIB ABS L37 1-23


     FILE HOME

     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   29 JUN 2006  HIGHEST RN 890083-16-6
     DICTIONARY FILE UPDATES:  29 JUN 2006  HIGHEST RN 890083-16-6

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

       Please note that search-term pricing does apply when
       conducting SmartSELECT searches.

     ************************************************************
     *                                                          *
     * The CA roles and document type information have been removed from *
     * the IDE default display format and the ED field has been added,   *
     * effective March 20, 2005.  A new display format, IDERL, is now    *
     * available and contains the CA role and document type information. *
     *                                                          *
     ************************************************************

     Structure search iteration limits have been increased.  See HELP SLIMITS
     for details.

     REGISTRY includes numerically searchable data for experimental and
     predicted properties as well as tags indicating availability of
     experimental property data in the original document.  For information
     on property searching in REGISTRY, refer to:

     http://www.cas.org/ONLINE/UG/regprops.html

     FILE HCAPLUS

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     strictly prohibited.

     FILE COVERS 1907 - 30 Jun 2006  VOL 145 ISS 2
     FILE LAST UPDATED: 29 Jun 2006  (20060629/ED)

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

      This file contains CAS Registry Numbers for easy and accurate
```

substance identification.

FILE BEILSTEIN
FILE LAST UPDATED ON JUNE 16, 2006

FILE COVERS 1771 TO 2006.
FILE CONTAINS 9,606,495 SUBSTANCES

>>>PLEASE NOTE: Reaction Data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For mo detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

****
* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST. *
* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE *
* ARE BASED ON THE HIGHEST PRICE CATEGORY. THEREFORE; THESE *
* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS. *
* FOR PRICE INFORMATION SEE HELP COST *
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NEW

*** PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE SEARCHED, SELECTED AND TRANSFERRED.**

*** NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES, ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A COMPOUND AT A GLANCE.**

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=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 17:03:52 ON 30 JUN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 30 Jun 2006  VOL 145 ISS 2
FILE LAST UPDATED: 29 Jun 2006  (20060629/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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=> d stat que l19
L15              STR
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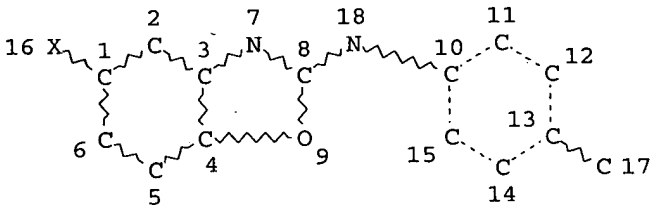


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  18

STEREO ATTRIBUTES: NONE
L17             7 SEA FILE=REGISTRY SSS FUL L15
L19             4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17


=> d ibib abs hitstr l19 1-4

L19  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2005:1225849  HCAPLUS
DOCUMENT NUMBER:          144:88204
TITLE:                    A facile synthesis of 2-aminothiazolo[5,4-b]pyridines
                          and 2-aminobenzoxazoles via cyclization of thioureas
AUTHOR(S):                Yoon, Ju Hee; Song, Hyunmin; Kim, Sang Wong; Han,
```
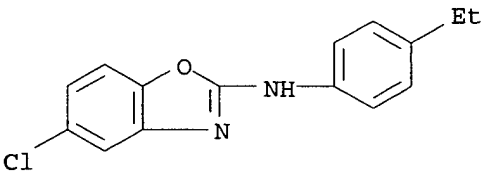

Gyoonhee; Choo, Hea-Young Park
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Heterocycles (2005), 65(11), 2729-2740
CODEN: HTCYAM; ISSN: 0385-5414
PUBLISHER: Japan Institute of Heterocyclic Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 2-Aminothiazolo[5,4-b]pyridines and 2-aminobenzoxazoles were synthesized via acid-catalyzed cyclization from 2-hydroxy-3-thioureidopyridine and 2-hydroxy-3-thioureidobenzene, resp., which in turn were prepared by the reaction of isothiocyanates with 2-hydroxy-3-aminopyridine or 2-aminophenol. The OH group of N-(2-hydroxy-5-phenyl)-N'-phenylthiourea reacted as nucleophile to the thioureido carbon to give 2-aminobenzoxazoles, whereas that of N-(2-hydroxypyridino)-N'-phenylthiourea reacted as leaving group upon the nucleophilic S of the thiourea group in the presence of CF3CO2H or H3PO4.

IT **770710-44-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of aminothiazolopyridines and aminobenzoxazoles via intramol. cyclocondensation of hydroxy thioureas)

RN 770710-44-6 HCAPLUS
CN 2-Benzoxazolamine, 5-chloro-N-(4-ethylphenyl)- (9CI) (CA INDEX NAME)

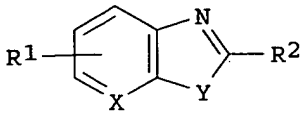


REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:825136 HCAPLUS
DOCUMENT NUMBER: 141:332184
TITLE: Method for inhibiting 5-lipoxygenase using a benzoxazole derivative or an analogue thereof
INVENTOR(S): Park, Choo Hea Young; Chang, Hyeun Wook; Yoon, Ju Hee; Ju, Hye Kyung
PATENT ASSIGNEE(S): S. Korea
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004198768	A1	20041007	US 2004-789725	20040227
PRIORITY APPLN. INFO.:			KR 2003-21055	A 20030403
			KR 2003-47104	A 20030711

OTHER SOURCE(S): MARPAT 141:332184
GI



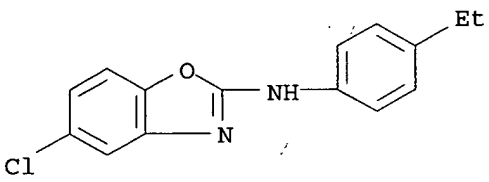
I

AB The title compds. [I; X = CH, N; Y = O, S; R1 = H, OH, halo, alkyl, etc.; R2 = NR3R4 (wherein R3 = H, alkyl; R4 = (un)substituted Ph), (un)substituted Ph, 2-benzothienyl, 3-pyridyl, etc.] which inhibit 5-lipoxygenase in a subject and are useful for preventing or treating a leukotriene-related diseases, were prepared Thus, reacting 2-hydroxy-3-aminopyridine with Ph isothiocyanate followed by cyclization of N-(2-hydroxypyridino)-N'-phenylthiourea with TFA afforded I [Y = S; X = N; R1 = H, R2 = NHPh] which showed IC50 of 9.52 μM against 5-lipoxygenase.

IT **770710-44-6P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzoxazoles and analogs as 5-lipoxygenase inhibitors for preventing or treating a leukotriene-related diseases)

RN 770710-44-6 HCAPLUS

CN 2-Benzoxazolamine, 5-chloro-N-(4-ethylphenyl)- (9CI) (CA INDEX NAME)



L19 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:521702 HCAPLUS

DOCUMENT NUMBER: 137:93763

TITLE: Preparation of chiral pyrrolidine derivatives as VLA-4 inhibitors

INVENTOR(S): Nakayama, Atsushi; Machinaga, Nobuo; Yoneda, Yoshiyuki; Sugimoto, Yuichi; Chiba, Jun; Watanabe, Toshiyuki; Iimura, Shin

PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 737 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002053534	A1	20020711	WO 2001-JP11641	20011228
WO 2002053534	C1	20020919		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,

	UA, UG, US, UZ, VN, YU, ZA, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2430978		AA	20020711	CA 2001-2430978	20011228
EP 1346982		A1	20030924	EP 2001-272548	20011228
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001016608		A	20040629	BR 2001-16608	20011228
ZA 2003004059		A	20040706	ZA 2003-4059	20011228
NO 2003002994		A	20030827	NO 2003-2994	20030627
US 2004110945		A1	20040610	US 2003-451159	20030630
PRIORITY APPLN. INFO.:				JP 2000-402890 A	20001228
				JP 2001-149923 A	20010518
				WO 2001-JP11641 W	20011228

OTHER SOURCE(S): MARPAT 137:93763
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

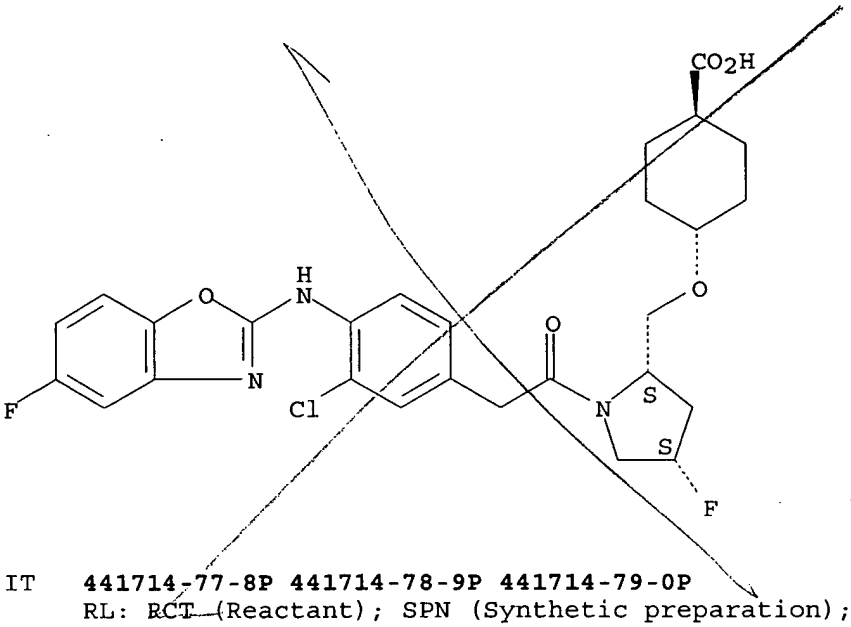
AB Title compds. [WRXM; W = WAA1WB; WA = optionally substituted aryl; A1 = NR1, single bond, C(O); WB = is optionally substituted arylene; R = single bond, NH, OCH2, alkenylene; X = C(O), CH2; M = group represented by the general formula I; R11, R12, R13 each independently = hydrogen, hydroxyl, amino, halogeno; R14 = hydrogen, alkyl; Y = CH2O; Z = optionally substituted arylene; A2 = single bond; R10 = hydroxyl, alkoxy; Q = CH2, S, O, NH], salts thereof, and medicines containing the same are prepared as VLA-4 inhibitors. Title compds. or salts selectively inhibit the binding of cell adhesion mols. to VLA-4 and exhibit high oral absorbability, thus being useful as preventive and/or therapeutic drugs for inflammatory diseases, autoimmune diseases, cancerous metastasis, bronchial asthma, nasal occlusion, diabetes, inflammatory enteric disease, arthritis, etc. The Title compound II was prepared from Et 4-amino-3-chlorophenylacetate, indoline, and Me [(4S)-fluoro-(2S)-pyrrolidinylmethoxy]cyclohexylcarbonate and the title compound III was prepared from Me 3-hydroxy-4-nitrophenylacetate, Ph isothiocyanate, and Me 4-[(4S)-fluoro-(2S)-pyrrolidinylmethoxy]benzoate.

IT **441712-27-2P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of chiral pyrrolidine derivs. as VLA-4 inhibitors)

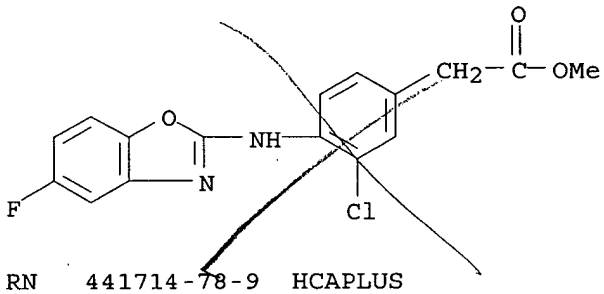
RN 441712-27-2 HCAPLUS

CN Cyclohexanecarboxylic acid, 4-[[(2S,4S)-1-[[3-chloro-4-[(5-fluoro-2-benzoxazolyl)amino]phenyl]acetyl]-4-fluoro-2-pyrrolidinyl]methoxy]-, trans- (9CI) (CA INDEX NAME)

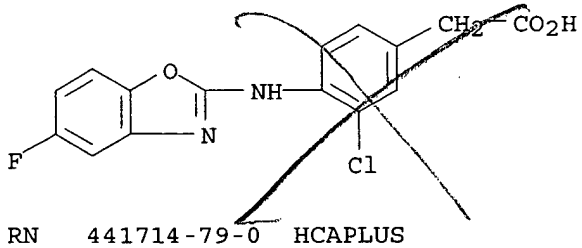
Absolute stereochemistry.



IT **441714-77-8P 441714-78-9P 441714-79-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of chiral pyrrolidine derivs. as VLA-4 inhibitors)
RN 441714-77-8 HCAPLUS
CN Benzeneacetic acid, 3-chloro-4-[(5-fluoro-2-benzoxazolyl)amino]-, methyl ester (9CI) (CA INDEX NAME)

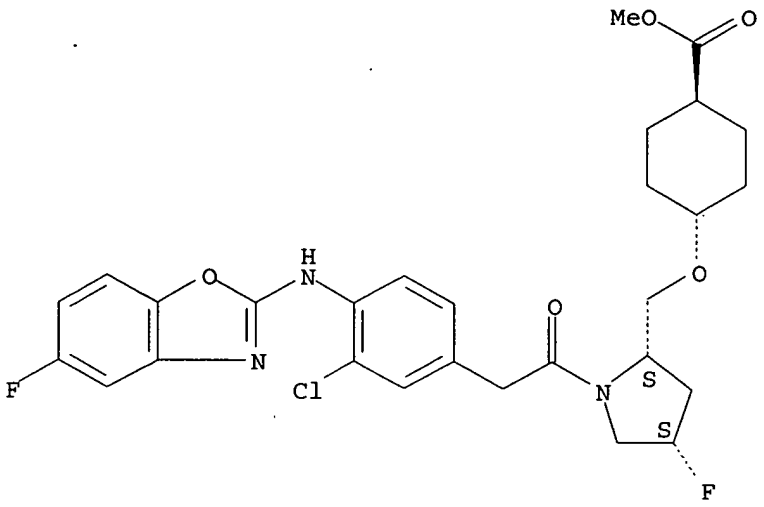


RN 441714-78-9 HCAPLUS
CN Benzeneacetic acid, 3-chloro-4-[(5-fluoro-2-benzoxazolyl)amino]- (9CI) (CA INDEX NAME)



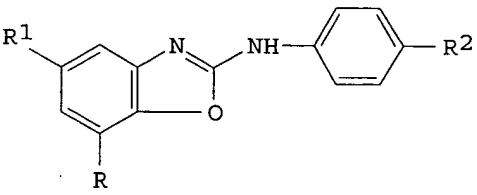
RN 441714-79-0 HCAPLUS
CN Cyclohexanecarboxylic acid, 4-[[(2S,4S)-1-[[3-chloro-4-[(5-fluoro-2-benzoxazolyl)amino]phenyl]acetyl]-4-fluoro-2-pyrrolidinyl]methoxy]-, methyl ester, trans- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 143 THERE ARE 143 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

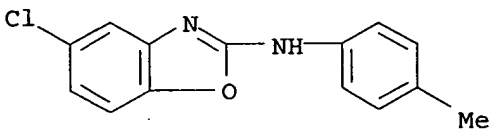
L19 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:138309 HCAPLUS
DOCUMENT NUMBER: 106:138309
TITLE: Facile synthesis of 2-substituted aminobenzoxazole. One pot cyclodesulfurization of N-(2-hydroxyphenyl)-N'-phenylthioureas with superoxide radical anion
AUTHOR(S): Chang, Hae Sung; Yon, Gyu Hwan; Kim, Yong Hae
CORPORATE SOURCE: Dep. Chem., Korea Adv. Inst. Sci. Technol., Seoul, S. Korea
SOURCE: Chemistry Letters (1986), (8), 1291-4
CODEN: CMLTAG; ISSN: 0366-7022
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 106:138309
GI



I

AB Treatment of N-(2-hydroxyphenyl)-N'-phenylthioureas with superoxide radical anion at 20° in MeCN, THF, or DMSO resulted in the formation of 2-substituted aminobenzoxazoles I (R = H, Me; R1 = Me, H, Cl; R2 = H, O2N, Me) (9 compds.) in 80-92% yield.
IT **107368-25-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 107368-25-2 HCAPLUS

CN 2-Benzoxazolamine, 5-chloro-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



=> d stat que l24 nos
L15 STR
L17 7 SEA FILE=REGISTRY SSS FUL L15
L19 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
L21 57 SEA FILE=HCAPLUS ABB=ON PLU=ON "CHOO H"/AU OR ("CHOO H Y"/AU OR "CHOO H Y P"/AU) OR ("CHOO HEA YOUNG"/AU OR "CHOO HEA YOUNG P"/AU OR "CHOO HEA YOUNG PARK"/AU)
L24 56 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 NOT L19

=> d ibib abs l24 1-57

L24 ANSWER 1 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:551703 HCAPLUS
DOCUMENT NUMBER: 145:12203
TITLE: Plastic flow in dynamic compression of a Zr-based bulk metallic glass
AUTHOR(S): Jiang, W. H.; Liu, F. X.; Qiao, D. C.; **Choo, H.**; Liaw, P. K.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Journal of Materials Research (2006), 21(6), 1570-1575
CODEN: JMREEE; ISSN: 0884-2914
PUBLISHER: Materials Research Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using geometrically constrained specimens, the plastic flow behaviors of the as-cast and the relaxed Zr52.5Cu17.9Ni14.6Al10.0Ti5.0 bulk metallic glass in the dynamic compression were investigated. Both alloys exhibit a significant plasticity in the dynamic compression. The plastic deformation in both alloys is still inhomogeneous, which is characterized by the serrated plastic flow and the formation of shear bands. Free vols. affect the shear banding and the plastic flow. The reduced free volume results in the deviation of the shear banding direction from the maximum shear stress. The relaxed alloy exhibits the obvious stress overshoot, which is consistent with the theor. prediction using a free volume model.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:550680 HCAPLUS
TITLE: Thermophysical properties of a Cu46Zr42Al7Y5 bulk metallic glass-forming liquid
AUTHOR(S): Fan, G. J.; Li, J. J. Z.; Rhim, Won-Kyu; Qiao, D. C.; **Choo, H.**; Liaw, P. K.; Johnson, W. L.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Applied Physics Letters (2006), 88(22), 221909/1-221909/3

CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The thermophys. properties, including the sp. volume V, the surface tension σ, and the viscosity η, of a Cu46Zr42Al7Y5 bulk metallic glass in the molten state were investigated using a containerless high-temperature high-vacuum electrostatic levitation technique. The viscosity measurements indicate that the Cu46Zr42Al7Y5 alloy exhibits an intermediate fragility with the fragility index m = 49.

L24 ANSWER 3 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:454187 HCAPLUS
TITLE: Orientation-dependent grain growth in a bulk nanocrystalline alloy during the uniaxial compressive deformation
AUTHOR(S): Fan, G. J.; Wang, Y. D.; Fu, L. F.; **Choo, H.**; Liaw, P. K.; Ren, Y.; Browning, N. D.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Applied Physics Letters (2006), 88(17), 171914/1-171914/3
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The microstructural evolution during the uniaxial compression of an as-deposited bulk nanocryst. (nc) Ni-Fe (average grain size d≈23 nm) at ambient temperature was investigated by the high-energy x-ray diffraction (HEXRD) and the transmission-electron microscopy (TEM). HEXRD measurements indicated that the grain growth occurred in the nc Ni-Fe alloy during the uniaxial compression tests and that the grain growth shows orientation dependence, i.e., the grains preferentially grow perpendicular to the loading direction. This preferred grain growth was further confirmed by the TEM observations, indicating that the grains were elongated after the compressive plastic deformation.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:401644 HCAPLUS
TITLE: Quenched-in quasicrystal medium-range order and pair distribution function study on Zr55Cu35Al10 bulk metallic glass
AUTHOR(S): Fan, Cang; Wilson, T. W.; Dmowski, W.; **Choo, H.**; Richardson, J. W.; Maxey, E. R.; Liaw, P. K.
CORPORATE SOURCE: Department of Materials Science and Engineering, University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Intermetallics (2006), 14(8-9), 888-892
CODEN: IERME5; ISSN: 0966-9795
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The quasicrystals phase was found in a crystallized Zr55Cu35Al10 bulk metallic glass by X-ray analyses. Pair-distribution-function (PDF) studies on as-cast and partially crystallized states were performed by neutron scattering measurements. The PDF study shows that a medium-range order exists in the as-cast metallic glass. The investigation on the partial crystallization confirms that the local structures of the metallic glass consist of a quenched-in

icosahedral medium-range order, which contribute to the quasicrystn. by reheating.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 5 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:401603 HCAPLUS
TITLE: Fatigue and fracture behavior of (Zr58Ni13.6Cu18Al10.4)99Nb1 bulk-amorphous alloy
AUTHOR(S): Qiao, D. C.; Liaw, P. K.; Fan, C.; Lin, Y. H.; Wang, G. Y.; **Choo, H.**; Buchanan, R. A.
CORPORATE SOURCE: Department of Materials Science and Engineering, University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Intermetallics (2006), 14(8-9), 1043-1050
CODEN: IERME5; ISSN: 0966-9795
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The fatigue and fracture behaviors of the (Zr58Ni13.6Cu18Al10.4)99Nb1 bulk amorphous alloy are investigated by four-point-bend fatigue tests. The material shows a fatigue-endurance limit and fatigue ratio of 559 MPa and .apprx. 0.328, resp. The fracture toughness is estimated to be about 26-43 MPa $\sqrt{m}$. Shear bands were found to be oriented greater than 45° on the tension surface and smaller than 45° on the compression surface, with respect to the outer fiber-stress direction of the sample. The d. of the shear bands on the tension side is greater than that on the compression side. Many wavy shear bands perpendicular to the outer fiber-stress direction also formed on the tension and compression surfaces during the fatigue process. The fracture surface can be divided into four regions: crack initiation, crack propagation, fast fracture, and melting regions. The fracture mechanism is discussed.
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:400171 HCAPLUS
TITLE: A combined drop/suction-casting machine for the manufacture of bulk-metallic-glass materials
AUTHOR(S): Wall, J. J.; Fan, C.; Liaw, P. K.; Liu, C. T.; **Choo, H.**
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Review of Scientific Instruments (2006), 77(3, Pt. 1), 033902/1-033902/4
CODEN: RSINAK; ISSN: 0034-6748
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The development of a machine with the capability to manufacture bulk-amorphous metal-alloy castings with a wide range of geometries and dimensions is described. The design utilizes a method of melting and alloying elemental metals and subsequently quench casting while controlling relative pressures to facilitate both drop and suction castings within an ultrahigh purity environment(.apprx.1 appm oxygen). The focus of this design was to improve the capabilities and simplicity of existing laboratory-scale metallic-glass casting machines, as well as to combine two major casting processes currently being utilized for the fabrication of bulk-metallic glasses (BMGs). Processing expts. on the glass-forming alloy Vitrelloy-105 (Zr52.5Cu17.9Ni14.6Al10Ti5) are discussed. The design is presented in a conceptual format, which will allow future units to be

developed and, subsequently, utilized for their unique capabilities. It is believed that this document should be of interest to anyone who would like to develop the capability to produce BMGs on the laboratory scale.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:353495 HCAPLUS
TITLE: Grain growth in a bulk nanocrystalline Co alloy during tensile plastic deformation
AUTHOR(S): Fan, G. J.; Fu, L. F.; Qiao, D. C.; **Choo, H.**; Liaw, P. K.; Browning, N. D.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Scripta Materialia (2006), 54(12), 2137-2141
CODEN: SCMAF7; ISSN: 1359-6462
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A bulk nanocryst. Co-P alloy was subjected to tensile tests. Grain growth from approx. 12 nm in the as-deposited state to about 25 nm after the tensile test was observed Grain growth was not observed when the deforming volume was increased, or when the specimen was annealed at 433 K or above prior to the tensile tests.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:280341 HCAPLUS
DOCUMENT NUMBER: 145:12089
TITLE: Texture variation and its influence on the tensile behavior of a friction-stir processed magnesium alloy
AUTHOR(S): Woo, W.; **Choo, H.**; Brown, D. W.; Liaw, P. K.; Feng, Z.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996-2200, USA
SOURCE: Scripta Materialia (2006), 54(11), 1859-1864
CODEN: SCMAF7; ISSN: 1359-6462
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Friction-stir processing (FSP) induces significant texture variations in magnesium alloys. Diffraction peak intensities measured using spatially-resolved neutron-diffraction scanning provide the quant. changes in the texture across the processing line. The relationship between the texture distribution and the tensile behavior of a FSP AZ31B Mg alloy is discussed.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 9 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:254249 HCAPLUS
DOCUMENT NUMBER: 144:437403
TITLE: Plastic deformation and fracture of ultrafine-grained Al-Mg alloys with a bimodal grain size distribution
AUTHOR(S): Fan, G. J.; **Choo, H.**; Liaw, P. K.; Lavernia, E. J.
CORPORATE SOURCE: Department of Materials Science and Engineering,

University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Acta Materialia (2006), 54(7), 1759-1766
CODEN: ACMAFD; ISSN: 1359-6454
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Four different ultrafine-grained (ufg) Al-7.5 weight % Mg alloys were synthesized by consolidation of a mixture of as-received and cryomilled Al-Mg powders with a ratio of 1:9, yielding a bimodal microstructure consisting of coarse grains (grain sizes, dcg, typically of several micrometers) evenly distributed in the ufg matrixes (average grain sizes d = 120, 142, 197, and 338 nm). The deformation behavior under uniaxial compression and tension of the as-extruded alloys was investigated. The Ramberg-Osgood equation was used to fit the compressive stress-strain curves of the bimodal ufg alloys. The compressive yield stresses of the ufg matrixes with different average grain sizes indicated a reduced slope in the Hall-Petch relation. The plastic deformation of the ufg Al-Mg alloys with a bimodal microstructure was highly localized. The fracture of the alloys was attributed to shear localization under the compressive tests, and to a combination of shear localization, cavitation, and necking under the tensile tests.
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:248539 HCAPLUS
TITLE: Antiviral activity of nucleoside analogs against SARS-Coronavirus (SARS-CoV)
AUTHOR(S): Chu, C. K.; Gadthula, S.; Chen, Xin; **Choo, H.**; Barnard, D. L.; Sidwell, R. W.
CORPORATE SOURCE: College of Pharmacy, The University of Georgia, Athens, GA, 30602, USA
SOURCE: Abstracts of Papers, 231st ACS National Meeting, Atlanta, GA, United States, March 26-30, 2006 (2006), MEDI-388. American Chemical Society: Washington, D. C.
CODEN: 69HYEC
DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)
LANGUAGE: English
AB Severe acute respiratory syndrome (SARS) is a new form of non-typical pneumonia, which is caused by a new member of the coronaviridae family, the SARS-coronavirus (SARS-Cov). To date, there are no effective therapies for the treatment of SARS. Therefore, intensive efforts are being made throughout the world to discover clin. effective antiviral agents. Although corticosteroids, antibiotics and antiviral agents have been used empirically for the treatment of this disease, these agents have not been demonstrated with reasonable assurance to have clin. efficacy. As a synthetic nucleoside, ribavirin has been studied in combination with corticosteroids and interferon-b for the treatment of SARS. It was of interest to evaluate the antiviral activity of a series of nucleoside analogs against SARS-CoV in vitro. We have evaluated a wide variety of such analogs that have been synthesized in our laboratory against this virus. Among the compds. we evaluated, some nucleosides displayed moderate anti-SARS activity. Structure-activity relationships will be presented (Supported by NIH UO19AI056540 and NO1-AI-30048).

L24 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:19703 HCAPLUS
DOCUMENT NUMBER: 144:163516
TITLE: Solid phase combinatorial synthesis of benzothiazoles

and evaluation of topoisomerase II inhibitory activity
AUTHOR(S): Choi, Suk-June; Park, Hyen Joo; Lee, Sang Kook; Kim, Sang Woong; Han, Gyoonhee; **Choo, Hea-Young Park**
CORPORATE SOURCE: Ewha Womans University, School of Pharmacy, Seoul, 120-750, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry (2006), 14(4), 1229-1235
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate one possible mechanism of action of the cytotoxic activity of benzothiazoles, we synthesized 2-(substituted-phenyl)benzothiazoles and evaluated their ability to inhibit topoisomerase II activities. Solid phase combinatorial method using trityl resin was employed and benzothiazole derivs. with various substitution on 2'-, 3'-, or 4'-position of Ph group were obtained in ca. 30 mg scale (7-96% yield). Most of the compds. synthesized exhibited topoisomerase II inhibitory activity at 100 μM. 2-(3-Amino-4-methylphenyl)benzothiazole showed high activity (IC50 = 71.7 μM), comparable to etoposide (IC50 = 78.4 μM).
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 12 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1272004 HCAPLUS
DOCUMENT NUMBER: 144:114902
TITLE: Fragility of metallic glass-forming liquids: A simple thermodynamic connection
AUTHOR(S): Fan, G. J.; **Choo, H.**; Liaw, P. K.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Journal of Non-Crystalline Solids (2005), 351(52-54), 3879-3883
CODEN: JNCSBJ; ISSN: 0022-3093
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fragility measures the degree by which the viscosity or relaxation time of a glass-forming liquid deviates from the Arrhenius behavior. We will demonstrate that kinetic fragility of a glass-forming liquid is quant. related to ΔSf/(Tm - TK), where ΔSf is the entropy of fusion, Tm the m.p., and TK the Kauzmann temperature of a glass-forming liquid A pos. correlation between ΔSf/(Tm - TK) and the kinetic fragility was found to hold in metallic glass-forming liqs., where both thermodn. and kinetic data are available. Such correlation is consistent with the energy landscape model of the glass transition. Furthermore, the thermodn. fragility index ΔSf/(Tm - TK) was reduced to ΔSf/T m assuming TK ≈ T m/2, and the correlation between ΔSf/Tm and kinetic fragility was discussed within the context of recently proposed cluster model of the glass transition.
REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 13 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1232003 HCAPLUS
DOCUMENT NUMBER: 144:25944
TITLE: Formation of dendritic nanotubes under an electric field
AUTHOR(S): Cui, Y.; Xu, C. L.; Han, Q. Y.; **Choo, H.**;

Liaw, P. K.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Advanced Engineering Materials (2005), 7(9), 827-829
CODEN: AENMFY; ISSN: 1438-1656
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The evolution of dendritic C nanotubes (CNTs) occurring in an acidic CNT-containing solution subjected to an elec. field is studied. As effect, the nanotube-containing solution changed from dark and not transparent before, began to move and form nanotube clusters during the action of the field, and then, the solution began to be transparent. After turning off the power, the movement of the cluster nanotubes under the external elec. field vanished, and the clusters moved down to the bottom of the beaker due to gravity. There were a great amount of nanotube dendrites, which have three-dimensional structures with long trunk (long axes) and some branches (short axes) in certain angles to the trunk. The short axes get distributed sep. from the long axes and do not exhibit oriented directions. The dendritic morphol. also shows the nerve cell structure as a network.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 14 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1229740 HCAPLUS
DOCUMENT NUMBER: 144:237086
TITLE: A model for the inverse Hall-Petch relation of nanocrystalline materials
AUTHOR(S): Fan, G. J.; **Choo, H.**; Liaw, P. K.; Lavernia, E. J.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Materials Science & Engineering, A: Structural Materials: Properties, Microstructure and Processing (2005), A409(1-2), 243-248
CODEN: MSAPE3; ISSN: 0921-5093
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We propose a composite model to explain the phenomena of strength softening with decreasing the grain size, which was reported in some nanocryst. (nc) materials. A nc material consists of a grain interior and an amorphous grain-boundary layer. The grain interior deforms elastically under external stresses, while the plastic deformation of the grain-boundary layer was governed by a Maxwell's equation. The strength of a nc material decreases linearly with decreasing the grain size, when the grain size is below a certain threshold. The model is compared with the exptl. data from the published studies on nc Cu and Ni. The predictions of relevant creep mechanisms for nc materials are also discussed.
REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 15 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1229248 HCAPLUS
DOCUMENT NUMBER: 144:381760
TITLE: Antibradykinin effects of the non-peptide antagonists of mixture libraries prepared by solution-phase

combinatorial synthesis
AUTHOR(S): Kam, Yoo Lim; **Choo, Hea-Young P.**
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Journal of Applied Pharmacology (2005), 13(3), 181-184
CODEN: JOAPA6; ISSN: 1225-6110
PUBLISHER: Korean Society of Applied Pharmacology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The solution-phase combinatorial synthesis of iminodiacetic acid triamide libraries linked to 1-(4-chlorobenzhydryl)piperazine has been reported. Ten mixture libraries, each containing 5 components, were synthesized in 4 steps from N-BOC-iminodiacetic acid anhydride. Antibradykinin effects of the mixture and individual libraries were compared using guinea-pig ileum smooth muscle. The changes in the inhibition were also observed by testing the combination of two different compds. from the same library. We found out the correlation between the inhibition of mixts. and that of individual libraries. It is possible to choose the mixts. with relatively high inhibitory effects to find out the most effective individual compound for further synthesis.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 16 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1214801 HCAPLUS
DOCUMENT NUMBER: 143:425545
TITLE: Fatigue-induced phase formation and its deformation behavior in a cobalt-based superalloy
AUTHOR(S): Benson, M. L.; Saleh, T. A.; Liaw, P. K.; **Choo, H.**; Brown, D. W.; Daymond, M. R.; Wang, X.-L.; Stoica, A. D.; Buchanan, R. A.; Klarstrom, D. L.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Advances in X-Ray Analysis (2005), 48, 123-129
CODEN: AXRAAA; ISSN: 1097-0002
PUBLISHER: International Centre for Diffraction Data
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB The low-cycle fatigue behavior of a cobalt-based superalloy was studied in-situ using neutron-diffraction expts. The alloy exhibited a strain-induced formation of a hexagonal-close-packed (hcp) phase within its parent face-centered-cubic (fcc) phase at ambient temperature under strain-controlled fatigue conditions with a total strain range, $\Delta\varepsilon$ = 2.5%. The (101) hcp peak was first observed during the 12th fatigue cycle under the given conditions following an incubation period, during which no hcp phase was detected. Subsequently, the intensity of the hcp peaks increased as fatigue progressed. Furthermore, within a single fatigue cycle, the intensity of the (101) hcp peak decreased during the compression half-cycle and increased again when the specimen was subjected to a subsequent tensile strain. The results suggests that the fcc to hcp transformation is partially reversible within one fatigue cycle.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 17 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1214800 HCAPLUS
DOCUMENT NUMBER: 144:492481
TITLE: Changes in elastic-strain profiles around a crack tip

during tensile loading and unloading cycles
AUTHOR(S): Sun, Y.; **Choo, H.**; Liaw, P. K.; Lu, Y. L.; Yang, B.; Brown, D. W.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Advances in X-Ray Analysis (2005), 48, 117-122
CODEN: AXRAAA; ISSN: 1097-0002
PUBLISHER: International Centre for Diffraction Data
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB The changes in elastic lattice-strain profiles and plastic zone around the fatigue crack in a compact-tension specimen were investigated during monotonic tensile loading and unloading cycles using neutron diffraction. Spatially-resolved strain measurements were performed on a 316 LN stainless steel to determine the in-plane (parallel to the loading direction) lattice-strain profiles ahead of the crack tip under a constant tensile load. The strain scanning was repeated under various applied loads ranging from 667 N to 8,889 N, which showed the development of in-situ tensile elastic lattice strains and associated plastic zone near the crack tip. Moreover, an increase in the compressive residual strains in front of the crack tip was observed after overloading the specimen. Finally, the comparison between the theor.-estimated plastic zone size and the changes in the diffraction peak width showed a good agreement.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1214798 HCAPLUS
DOCUMENT NUMBER: 144:472554
TITLE: Two-dimensional mapping of residual strains in 6061-T6 aluminum alloy friction stir welds
AUTHOR(S): Woo, W.; **Choo, H.**; Brown, D. W.; Feng, Z.; Liaw, P. K.; David, S. A.; Hubbard, C. R.
CORPORATE SOURCE: Department of Material Science and Engineering, University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Advances in X-Ray Analysis (2005), 48, 104-110
CODEN: AXRAAA; ISSN: 1097-0002
PUBLISHER: International Centre for Diffraction Data
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB The residual strain profiles were measured through the thickness of friction-stir welded (FSW) plates using n diffraction to study the relation between the angular distortion and the residual strain distribution. Three different weld specimens were prepared from a 6061-T6 Al alloy with the purpose of separating the effects of the frictional heat and plastic deformation on the residual strain distribution and the angular distortion in the weld plate: (Case 1) a plate processed with both stirring pin and tool shoulder, i.e., a regular FSW subjected to both plastic deformation and frictional heat, (Case 2) a plate processed only with the tool shoulder, i.e., subjected mainly to the frictional heating, and (Case 3) a plate processed only with the pin, i.e., subjected mainly to the plastic deformation. Case 1 showed little bending of the weld plate about longitudinal (welding) direction, Case 2 exhibited a concave bending, and the Case 3 exhibited a convex bending, suggesting that different residual strain profiles exist through the thickness of the plates. Three principal strain components were measured across the weld line at the face, center, and root of the cross section of the welds. Case 1 showed little variations in the residual strain profiles though the thickness while Case 2 showed significant variations. Unfortunately, results from Case 3 were questionable due to the presence of a groove on

the surface of the plate and, hence, it may not truly represent the pin-only case. The comparison between Case 1 and Case 2 suggests that an optimal combination of the pin action (plastic deformation and heat transfer through the thickness of the plate) and the shoulder action (heating) could minimize (or provide intentional manipulation of) the through-thickness variation of residual strains and angular distortion in the FSW plates.

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 19 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1164768 HCAPLUS
DOCUMENT NUMBER: 143:452175
TITLE: Antagonistic effects of novel non-peptide chlorobenzhydryl piperazine compounds on contractile response to bradykinin in the guinea-pig ileum
AUTHOR(S): Kam, Yoo Lim; Ro, Jai Youl; Kim, Hwa-Jung; **Choo, Hea-Young Park**
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: European Journal of Pharmacology (2005), 523(1-3), 143-150
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Two novel compds., N-phenylacetyl-N'-(4-methoxybenzyl)-N''-1-(4-chlorobenzhydryl)piperazineiminodiaceticacid triamide (compound I) and N-phenylacetyl-N'-(4-methylbenzyl)-N''-1-(4-chlorobenzhydryl)piperazine iminodiacetic acid triamide (compound II), designed and synthesized as novel nonpeptide bradykinin B2 receptor antagonists, were studied for their functional activities in isolated guinea-pig ileum smooth muscle. These compds. were compared with the conventional peptide bradykinin B2 receptor antagonist, icatibant (H-DArg-Arg-Pro-Hyp-Gly-Thi-Ser-DTic-Oic-Arg-OH) for their in vitro functional activities. Compds. I and II showed highly potent, time-dependent insurmountable antagonism against contractile responses to bradykinin (pKB 8.80 and 8.57, resp.) with progressive reduction of maximum effect maintaining the concentration producing half maximal-response unchanged. Otherwise, icatibant, known as a noncompetitive antagonist, showed a rightward displacement of cumulative concentration-response curves to bradykinin with decrease of its maximum effect (pKB 8.73). The IC50 values of compds. I and II were 3.56 + 10-8 and 6.30 + 10-8 M, resp., while that of icatibant was 5.02 + 10-8 M. The profile of action of compds. I and II varied when contact time was prolonged from 5 to 60 min, whereas that of icatibant did not. The inhibitory effects of the newly synthesized compds. and icatibant on the contractile response to bradykinin were differently reverted by washout (icatibant < 100 min, compds. I and II > 100 min). This class of compds. containing the chlorobenzhydryl piperazine moiety is expected to be a novel nonpeptide bradykinin B2 receptor antagonists.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 20 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1043653 HCAPLUS
DOCUMENT NUMBER: 143:444566
TITLE: Strength softening and stress relaxation of nanostructured materials
AUTHOR(S): Fan, G. J.; **Choo, H.**; Liaw, P. K.; Lavernia, E. J.
CORPORATE SOURCE: Department of Materials Science and Engineering, University of Tennessee, Knoxville, TN, 37516, USA
SOURCE: Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science (2005), 36A(10), 2641-2649
CODEN: MMTAEB; ISSN: 1073-5623
PUBLISHER: Minerals, Metals & Materials Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A composite model is proposed to rationalize the phenomena of strength softening with decreasing grain size for nanostructured materials, which is assumed to consist of a grain interior and an amorphous grain-boundary layer. The grain interior deforms elastically under external stresses, while the linear viscoelastic flow is responsible for the plastic deformation of the grain-boundary layer, whose stress "relaxation" follows Maxwell's equation. The results indicate that the strength of a nanostructured material decreases linearly with decreasing grain size, when the grain size is below a certain threshold. The model is compared with the exptl. data from the published studies on nanostructured Cu and Ni. The relevant creep mechanisms for nanostructured materials are also discussed in light of model predictions.
REFERENCE COUNT: 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:697419 HCAPLUS
DOCUMENT NUMBER: 143:309630
TITLE: Inter- and intragranular stresses in cyclically-deformed 316 stainless steel
AUTHOR(S): Wang, X.-L.; Wang, Y. D.; Stoica, A. D.; Horton, D. J.; Tian, H.; Liaw, P. K.; **Choo, H.**; Richardson, J. W.; Maxey, E.
CORPORATE SOURCE: Spallation Neutron Source (SNS), Oak Ridge National Laboratory, Oak Ridge, TN, 37830, USA
SOURCE: Materials Science & Engineering, A: Structural Materials: Properties, Microstructure and Processing (2005), A399(1-2), 114-119
CODEN: MSAPE3; ISSN: 0921-5093
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Neutron diffraction was used to study residual stresses in cyclically-deformed 316 LN stainless steel. The tension-compression high-cycle fatigue tests were conducted in air with a frequency of 0.2 Hz. Large intergranular stresses were found to develop in the stainless steel as a result of elastic and plastic anisotropy. These intergranular stresses started to decrease when microcracks were initiated at the surface and vanished when the sample reached failure. Cyclic loading also led to the development of intragranular stresses, as evidenced by the broadening of the diffraction peaks. Anal. of the orientation dependence of the measured peak widths indicates that the immobile dislocations generated by fatigue deformation are mostly edge rather than screw type.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 22 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:583625 HCAPLUS
DOCUMENT NUMBER: 143:180498
TITLE: Thermal-expansion behavior of a directionally solidified NiAl-Mo composite investigated by neutron diffraction and dilatometry
AUTHOR(S): Bei, H.; George, E. P.; Brown, D. W.; Pharr, G. M.; **Choo, H.**; Porter, W. D.; Bourke, M. A. M.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Journal of Applied Physics (2005), 97(12), 123503/1-123503/5
CODEN: JAPIAU; ISSN: 0021-8979
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The thermal expansion of directionally solidified NiAl-Mo eutectic alloys consisting of nanoscale Mo fibers embedded in a NiAl matrix was analyzed by neutron diffraction and dilatometry. From room temperature to 800°C, perpendicular to the fiber direction, the NiAl and Mo phases expand independently with average coeffs. of thermal expansion (CTEs) of 16.0 + 10-6 and 5.8 + 10-6 °C-1, resp. Parallel to the fiber direction, they co-expand up to 650°C with an average CTE of 12.8 + 10-6 °C-1, but above this temperature the Mo fibers expand more than the NiAl matrix. This anomalous behavior is the result of the load transfer to the Mo fibers when the NiAl matrix softens. The average CTE of the composite parallel to the fiber direction was determined by dilatometry to be 13.0 + 10-6 °C-1, which is approx. 11% lower than the value predicted by a simple rule of mixts. using the CTEs of the constituent phases.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 23 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:456871 HCAPLUS
DOCUMENT NUMBER: 143:270398
TITLE: Fatigue-induced phase formation and its deformation behavior in a cobalt-based superalloy
AUTHOR(S): Benson, M. L.; Saleh, T. A.; Liaw, P. K.; **Choo, H.**; Brown, D. W.; Daymond, M. R.; Wang, X.-L.; Stoica, A. D.; Buchanan, R. A.; Klarstrom, D. L.
CORPORATE SOURCE: Department of Materials Science and Engineering, University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Powder Diffraction (2005), 20(2), 121-124
CODEN: PODIE2; ISSN: 0885-7156
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The low-cycle fatigue behavior of a Co-based superalloy was studied in situ using neutron-diffraction expts. The alloy exhibited stress-induced formation of a hcp. phase within its parent face centered cubic phase at ambient temperature under strain-controlled fatigue conditions with a total strain range, $\Delta\varepsilon$ = 2.5%. The (101) hcp. peak was 1st observed during the 12th fatigue cycle under the given conditions following a period during which no hcp. phase was detected. Subsequently, the intensity of the hcp. peaks increased as fatigue progressed. Furthermore, within a single fatigue cycle, the intensity of the (101) hcp. peak decreased during the

compression half-cycle and increased again when the specimen was subjected to a subsequent tensile strain. The result suggests that the fcc to hcp transformation is partially reversible within one fatigue cycle.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 24 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:191771 HCAPLUS
TITLE: Synthesis of 1-/ 2-substituted-[1,2,3]triazolo[4,5-g]phthalazine-4,9-diones and evaluation of their cytotoxicity
AUTHOR(S): **Choo, Hea-Young Park**; Kim, Jinsung; Park, Hunjoo; Lee, Sangkook
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), MEDI-438. American Chemical Society: Washington, D. C.
CODEN: 69GQMP
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
AB The cytotoxicity of the heterocyclic quinones has been thoroughly studied and the antitumor activity of imidazoquinoxalinedione derivs., imidazoquinolinedione derivs., and imidazophthalazinedione derivs. was reported. Since Johnson and co-workers have reported that the number and position of nitrogen atoms are important for cytotoxicity, we anticipated higher activity on introduction of more nitrogens in the heterocyclic quinones. Here we report the synthesis and cytotoxicity of triazolophthalazinedione derivs. Synthesis of 1-/2-substituted-[1,2,3]triazolo[4,5-g]phthalazine-4,9-diones has been achieved by the modified reaction of reported method using phthalazine-5,8-dione and 4-methoxybenzyl azide. The 1,3-dipolar addition of 4-methoxybenzyl azide to phthalazine-5,8-dione resulted in the formation of triazolophthalazine-4,9-dione derivative Alkylation of triazole gave a mixture of two isomers and these isomers were separated by chromatog. The cytotoxicity was evaluated by a SRB (sulforhodamine B) assay against A549, SK-OV-3, SK-MEL-2, XF498 and HCT15. Most of the synthesized compds. showed very high cytotoxicity, considerably higher than that of the reference compound doxorubicin.

L24 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:191720 HCAPLUS
TITLE: 3D-QSAR study of heterocyclic quinone compounds with antifungal activity by CoMFA
AUTHOR(S): **Choo, Hea-Young Park**; Choi, Su-young; Ryu, Chung-Kyu
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Abstracts of Papers, 229th ACS National Meeting, San Diego, CA, United States, March 13-17, 2005 (2005), MEDI-387. American Chemical Society: Washington, D. C.
CODEN: 69GQMP
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English
AB Recently, we reported that some heterocyclic quinone compds. such as 6-(N-arylamino)-7-chloro/6,7-bis[S-(aryl)thio]-5,8-quinolinedione,6-arylthio-/5,6-aryl amino-4,7-dioxobenzothiazoles and 2,5-disubstituted-6-arylamino-4,7-benzimidazolediones have antifungal effects. To understand

the structural basis for antifungal activity and guide the design of more potent agents, we perfomed three dimensional quant. structure activity relationship studies for these series of compds. using CoMFA. All mol. models and statistical analyses were performed with SYBYL 7.0 mol. modeling software and Silicon Graphics Indy workstation. The MIC values of heterocyclic quinone compds. on A.niger exhibited a strong correlationship with steric, electrostatic and lipophilic factors of the mols. The statistical results of the training set with 49 compds., cross-validated q2(0.759) and conventional r2(0.936) values gave reliability to the prediction of inhibitory activity of these compds. The contour maps obtained by CoMFA gave an indication for favorable regions for bulkier and electropos. substituents. The contribution for the steric factor was more important (71.1%) than electrostatic factor (28.2%).

L24 ANSWER 26 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:145281 HCAPLUS
DOCUMENT NUMBER: 142:415256
TITLE: Deformation behavior of an ultrafine-grained Al-Mg alloy at different strain rates
AUTHOR(S): Fan, G. J.; Wang, G. Y.; **Choo, H.**; Liaw, P. K.; Park, Y. S.; Han, B. Q.; Lavernia, E. J.
CORPORATE SOURCE: Department of Materials Science and Engineering, The University of Tennessee, Knoxville, TN, 37996, USA
SOURCE: Scripta Materialia (2005), 52(9), 929-933
CODEN: SCMAF7; ISSN: 1359-6462
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An ultrafine-grained Al-Mg alloy was synthesized by the consolidation of cryomilled powders and subsequent hot extrusion. At strain rates of 10-4 and 10-3 s-1, the stress-strain curves show the serrated-flow behavior. At strain rates of 10-2 and 10-1 s-1, instead of the serrated flow, the shear band formation was observed
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 27 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:997428 HCAPLUS
DOCUMENT NUMBER: 142:85787
TITLE: Prediction on the chiral behaviors of drugs with amine moiety on the chiral cellobiohydrolase stationary phase using a partial least square method
AUTHOR(S): Choi, Sun Ok; Lee, Seok Ho; **Choo, Hea-Young Park**
CORPORATE SOURCE: Division of Biopharmaceutics, Department of Pharmacology, National Institute of Toxicological Research, Korea Food and Drug Administration, Seoul, 122-704, S. Korea
SOURCE: Archives of Pharmacal Research (2004), 27(10), 1009-1015
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Quant. Structure-Resolution Relationship (QSRR) using the Comparative Mol. Field Anal. (CoMFA) software was applied to predict the chromatog. behaviors of chiral drugs with an amine moiety on the chiral cellobiohydrolase (CBH) columns. As a result of the Quant. CoMFA-Resolution Relationship study, using the partial least square method, prediction of the behavior of drugs with amine moiety upon chiral separation became possible

from their three dimensional mol. structures. When a mixed mobile phase of 10 mM aqueous phosphate buffer (pH 7.0) - isopropanol (95: 5) was employed, the best Quant. CoMFA-Resolution Relationship, derived from the study, provided a cross-validated q2 = 0.933, a normal r2 = 0.995, while the best Quant. CoMFA-Separation Factor Relationship, also derived from the study, yielded a cross-validated q2 = 0.939, a normal r2 = 0.991. When all of these results are considered, this QSRR-CoMFA anal. appears to be a very useful tool for the preliminary prediction on the chromatog. behaviors of drugs with an amine moiety inside chiral CBH columns.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:752721 HCAPLUS
DOCUMENT NUMBER: 141:395514
TITLE: An Efficient and Improved Route for the Preparation of (S)-5-Aminomethyloxazolidinone Libraries
AUTHOR(S): Kim, Sang Woong; Lee, Jung Gyu; Lee, Eun Ju; **Choo, Hea-Young Park**; Yoo, Chung Youl; Lee, Dae Yon; Roh, Kyoung Rok; Kim, Eon Kyeom
CORPORATE SOURCE: Leadgenex, Inc., Taejeon, 306-230, S. Korea
SOURCE: Journal of Combinatorial Chemistry (2004), 6(6), 851-854
CODEN: JCCHFF; ISSN: 1520-4766
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:395514
AB In the preparation of (5S)-3-(4-piperazinophenyl)-5-aminomethyl-2-oxazolidinones,related to linezolid, the oxazolidine ring is formed by reaction of protected 4-piperazinophenylcarbamate with protected (S)-aminomethyloxirane.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 29 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:469789 HCAPLUS
DOCUMENT NUMBER: 141:167220
TITLE: Synthesis and cytotoxicity of 1-substituted 2-methyl-1H-imidazo[4,5-g]phthalazine-4,9-dione derivatives
AUTHOR(S): Kim, Jin Sung; Lee, Hyun-Jung; Suh, Myung-Eun; **Choo, Hea-Young Park**; Lee, Sang Kook; Park, Hyen Joo; Kim, Choonmi; Park, Sang Woo; Lee, Chong-Ock
CORPORATE SOURCE: College of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(13), 3683-3686
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:167220
AB A series of 1-substituted 2-methyl-1H-imidazo[4,5-g]phthalazine-4,9-dione derivs. Compound 8 was synthesized from 6,7-dichlorophthalazine-5,8-dione (5) and evaluated for in vitro cytotoxicity against several human tumor cell lines. Most of the tested compds. showed potential cytotoxic activity considerably higher than that of the reference compds., ellipticine and doxorubicin.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:469774 HCAPLUS
DOCUMENT NUMBER: 141:190758
TITLE: Solution-phase combinatorial synthesis of nonpeptide bradykinin antagonists
AUTHOR(S): Kam, Yoo Lim; Rhee, Soo-Jin; **Choo, Hea-Young P.**
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry (2004), 12(13), 3543-3552
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:190758
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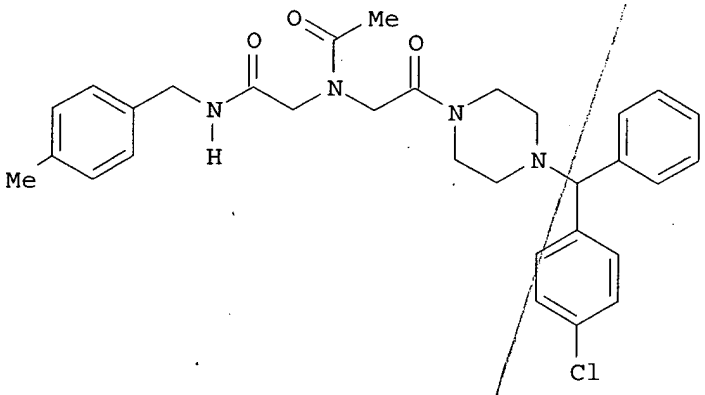


I

AB The solution-phase combinatorial synthesis and pharmacol. effect of a series of N,N'-substituted-N''-1-(4-chlorobenzhydryl)piperazine iminodiacetic acid triamide derivs., e.g. I, as nonpeptide B2 antagonists is reported. The synthesized compds. were tested for their antibradykinin activity by utilizing guinea-pig ileum smooth muscle. Most of the compds. showed antagonistic effects on bradykinin induced contraction. N-Acetyl-N'-(4-methylbenzyl)-N''-1-(4-chlorobenzhydryl)piperazine iminodiacetic acid triamide (I) showed 46% inhibition at 100 nM.
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:251376 HCAPLUS
DOCUMENT NUMBER: 139:190614
TITLE: QSAR study of quinolinediones with inhibitory activity of endothelium-dependent vasorelaxation by CoMSIA
AUTHOR(S): **Choo, Hea-Young Park**; Choi, Suyoung; Ryu, Chung-Kyu; Kim, Hwa-Jung; Lee, In Young; Paeb, Ae Nim; Koh, Hun Yeong
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul,

120-750, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry (2003), 11(9), 2019-2023
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The 3D-QSAR study of quinolinediones which showed potent inhibitory effect on the acetylcholine induced vasorelaxation of rat aorta with the endothelium was conducted by CoMSIA. The statistical result, cross-validated q2 (0.741) and r2 (0.960) values, gave reliability to the prediction of inhibitory activity of this series.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 32 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:414977 HCAPLUS
DOCUMENT NUMBER: 137:124286
TITLE: Enhancement of entomopathogenic nematode production in in-vitro liquid culture of Heterorhabditis bacteriophora by fed-batch culture with glucose supplementation
AUTHOR(S): Gil, G. H.; **Choo, H. Y.**; Gaugler, R.
CORPORATE SOURCE: Department of Entomology, Rutgers University, New Brunswick, NJ, 08901-8524, USA
SOURCE: Applied Microbiology and Biotechnology (2002), 58(6), 751-755
CODEN: AMBIDG; ISSN: 0175-7598
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nematode yield is a decisive factor for successful large-scale com. production of entomopathogenic nematode. Various carbon sources were tested in in-vitro liquid culture to improve the yield of the entomopathogenic nematode Heterorhabditis bacteriophora. Canola oil was the optimal carbon source for nematode culture compared to carbohydrates when applied as a sole carbon source. However, when some of carbohydrates were applied together with canola oil, significant increases in nematode yield were observed When 25 mg glucose/mL was supplemented to 25 mg oil-based liquid culture medium/mL, the highest nematode yield, 3.62+105 infective juveniles, was achieved at 12 days, but nematode growth was suppressed at higher than 75 mg glucose/mL. A fed-batch culture process was introduced in nematode liquid culture consisting of two growth phases: bacteria and nematode. In the oil fed-batch culture, in which only glucose was initially added and oil was fed to the culture after the bacterial growth phase concurrent with nematode inoculation, nematode yield increased up to 4.25+105 infective juveniles/mL, while the batch culture resulted in 3.60+105 infective juveniles/mL. These results indicate that glucose is a superior carbon source for the bacteria, whereas canola oil is optimal for the nematode. The application of fed-batch culture provides significant enhancement of nematode yield in in-vitro liquid culture.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 33 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:639993 HCAPLUS
TITLE: Enantiomeric synthesis of D- and L-cyclopentenyl nucleosides and their antiviral activity against West Nile virus

AUTHOR(S): Song, G. Y.; Paul, V.; **Choo, H.**; Morrey, J.; Sidwell, R. W.; Chu, C. K.
CORPORATE SOURCE: College of Pharmacy, The University of Georgia, Athens, GA, 30602, USA
SOURCE: Abstracts of Papers, 222nd ACS National Meeting, Chicago, IL, United States, August 26-30, 2001 (2001), MEDI-174. American Chemical Society: Washington, D. C.
CODEN: 69BUZP
DOCUMENT TYPE: Conference; Meeting Abstract
LANGUAGE: English

AB Enantiomeric synthesis of D- & L-cyclopentenyl nucleosides and their antiviral activity against West Nile virus are described. The key intermediate (+)- and (-)-cyclopentenyl alcs. were prepared from D-γ -ribonolactone and ribose, resp. Coupling of the (+)-cyclopentenyl alc. with appropriately blocked purine and pyrimidine bases via the Mitsunobu condensation, followed by deprotection afforded D-(-)-cyclopentenyl nucleosides. L-(+)-Cyclopentenyl nucleosides were also prepared from (-)-cyclopentenyl alc. using the same procedure. The synthesized compds. were evaluated for their antiviral activity against West Nile Virus. Among the synthesized nucleosides, D-(-)-cytosine and D-(-)-5-fluorocytosine analogs exhibited the most potent anti-West Nile virus activity (EC50 0.2-3.0 and 15-20 μ M, resp.) without significant cytotoxicity up to 100 μ M in Vero cell. However, L-(+)-cyclopentenyl analogs did not show any significant antiviral activity. Detailed synthesis and structure-activity relationships will be presented (supported by NIH AI 32351 & UO1 AI 48495).

L24 ANSWER 34 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:629121 HCAPLUS
DOCUMENT NUMBER: 135:321217
TITLE: A finite-element analysis of the inelastic relaxation of thermal residual stress in continuous-fiber-reinforced composites
AUTHOR(S): **Choo, H.**; Bourke, M. A. M.; Daymond, M. R.
CORPORATE SOURCE: Manuel Lujan Jr. Neutron Scattering Center, Los Alamos National Laboratory, Los Alamos, NM, 87545, USA
SOURCE: Composites Science and Technology (2001), 61(12), 1757-1772
CODEN: CSTCEH; ISSN: 0266-3538
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In an effort to develop a methodol. for interpreting in situ high-temperature neutron diffraction measurements of thermal residual stresses in composites, a finite-element model was developed and the implications of various material and exptl. parameters on the residual stress evolution were studied. The model composite comprised a continuous Al2O3 fiber, unidirectionally aligned in a NiAl matrix. The effects of temperature-dependent elastic, plastic or creep properties, fiber volume fraction and cooling/heating rates were explored on the relaxation mechanisms of the residual stress during an initial cooling and a subsequent heating. Thermal path-dependency in the stress evolution was investigated by comparing the cooling and re-heat cycles. The result shows that the effect of the time-dependent deformation (creep) becomes more significant as the fiber content increases and the cooling/heating rate decreases. Furthermore, the path-dependency in stress evolution becomes stronger (i.e. considering the actual thermal history in the model becomes more important) as the total inelastic relaxation increases during the cooling

and/or the subsequent re-heating cycles due to; (i) the presence of creep in addition to plastic deformation, (ii) increased fiber volume fraction, and (iii) slower cooling/heating rates. It was also demonstrated that using an estimated stress-free temperature in elastic-plastic models can be problematic in predicting the high-temperature behavior due to; (i) the simple assumption of reduced ΔT, and (ii) the thermal path-dependency.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 35 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:643645 HCAPLUS
DOCUMENT NUMBER: 133:305279
TITLE: 3D QSAR studies on new piperazine derivatives with antihistamine and antibradykinin effects
AUTHOR(S): **Choo, Hea-Young Park**; Chung, Bum-Jun
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Archives of Pharmacal Research (2000), 23(4), 324-328
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Three dimensional QSAR studies for antihistamine and antibradykinin effects of new piperazine derivs. were conducted using the comparative mol. field anal. Electrostatic and steric factors, but not hydrophobic factor, of the compds. were correlated with the antagonistic effect.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 36 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:535991 HCAPLUS
DOCUMENT NUMBER: 133:267134
TITLE: Design and synthesis of α,β-unsaturated carbonyl compounds as potential ACE inhibitors
AUTHOR(S): **Choo, Hea-Young Park**; Peak, Kyung-Hee; Park, Jongsei; Kim, Dong Hyun; Chung, Hak Soon
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: European Journal of Medicinal Chemistry (2000), 35(6), 643-648
CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The α,β-unsatd. amide that is incorporated into the basic structural frame of a simple substrate mol. of angiotensin converting enzyme was found to serve as a Michael acceptor for the catalytic carboxylate of Glu-127, inhibiting the enzyme irreversibly.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:469596 HCAPLUS
DOCUMENT NUMBER: 133:246738
TITLE: Stereoselective determination of cetirizine and studies on pharmacokinetics in rat plasma
AUTHOR(S): Choi, S. O.; Lee, S. H.; Kong, H. S.; Kim, E. J.; **Choo, H.-Y. P.**
CORPORATE SOURCE: Department of Drug Evaluation, Division of

Antibiotics, Korea Food and Drug Administrations, Seoul, S. Korea
SOURCE: Journal of Chromatography, B: Biomedical Sciences and Applications (2000), 744(1), 201-206
CODEN: JCBBEP; ISSN: 0378-4347
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Enantiomers may confer benefits over racemates in therapeutic uses and we developed a chiral separation method of cetirizine enantiomers, a second generation H1 histamine receptor antagonist, in rat plasma. α1-Acidglycoprotein based chiral stationary phase(AGP-CSP), monitored with UV at 230 nm was used to sep. the enantiomers. Observed enantioselectivity (α) was 2.0. The AGP-CSP was also used at a preparative scale to isolate the enantiomers with an optical purity of greater than ee 99%. In addition, an anal. was carried out for the cetirizine enantiomers in rat plasma to study the differences of enantiomers in pharmacokinetics. Both (+)- and (-)-cetirizine were separated using a reversed-phase column of AGP, and were detected at the range of 2.5-200 μg ml-1 in plasma. Although there was no recognizable differences in pharmacokinetics between the enantiomers in rat, the method appears to be useful for their pharmacokinetic studies.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:46465 HCAPLUS
DOCUMENT NUMBER: 132:155118
TITLE: Internal strain evolution during heating of Ti-6Al-4V/SCS-6 composite
AUTHOR(S): **Choo, H.**; Rangaswamy, P.; Bourke, M. A. M.
CORPORATE SOURCE: Manuel Lujan Jr. Neutron Scattering Center, Los Alamos National Laboratory, Los Alamos, NM, USA
SOURCE: Scripta Materialia (1999), Volume Date 2000, 42(2), 175-181
CODEN: SCMAF7; ISSN: 1359-6462
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The continuous SiC fiber-reinforced Ti-6Al-4V matrix composite consisted of 8 plies of the unidirectional aligned SCS-6 fibers. The phase and thermal residual strain evolution during heating of this composite was characterized by in situ high temperature neutron diffraction. The volume fraction of the α- and β-Ti remained constant up to 800 K, and above this temperature the matrix microstructure changed from α-Ti rich to β-Ti rich. The room temperature tensile strain in the matrix (α; 2600 μE, β; 1900 μE) and compressive strain in the fibers (-1500 μE) relaxed under heating elastically up to 800-900 K, and the process-induced thermal residual strains in the β-Ti and SiC relaxed to zero at 700 and 800 K, resp. Heating to higher temps. caused a reversal in sign of the strain in the SiC and the β-Ti phases, and above 900 K the magnitude of residual strains in all 3 phases remained constant suggesting an active inelastic relaxation. The residual strain in the basal plane of α-Ti was higher than that in the prism plane presumably due to thermal anisotropy.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 39 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:639896 HCAPLUS

DOCUMENT NUMBER: 132:117
TITLE: Synthesis of piperazine derivatives and evaluation of their antihistamine and antibradykinin effects
AUTHOR(S): **Choo, Hea-Young Park**; Chung, Bum-Jun; Chung, Sung-Hyun
CORPORATE SOURCE: School of Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Bioorganic & Medicinal Chemistry Letters (1999), 9(18), 2727-2730
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Piperazine derivs. were prepared as histamine antagonists. Some of the synthesized compds. showed dual antagonistic activity against bradykinin as well as histamine. Structure-activity relations are discussed.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 40 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:240073 HCAPLUS
DOCUMENT NUMBER: 130:355412
TITLE: Processing and characterization of mechanically alloyed NiAl-based composites
AUTHOR(S): Nash, P.; **Choo, H.**; Wu, S. H.; Dollar, M.
CORPORATE SOURCE: Mechanical, Materials and Aerospace Engineering Department, Illinois Institute of Technology, Chicago, IL, 60616, USA
SOURCE: Advances in Powder Metallurgy & Particulate Materials (1998), (Vol. 2), 7/57-7/64
CODEN: APMME3; ISSN: 1065-5824
PUBLISHER: Metal Powder Industries Federation
DOCUMENT TYPE: Journal
LANGUAGE: English
AB NiAl powder containing AlN dispersoids was synthesized by mech. alloying of elemental powders. These powders were consolidated by hot pressing and the creep properties evaluated. The powders were blended with Al2O3 fibers and consolidated by hot pressing to produce composites containing from 15 to 30 volume % fiber reinforcement. The synthesis, blending and consolidation process for the composite is described. Preliminary data on the mech. properties of the fiber reinforced composite are presented.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 41 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:62428 HCAPLUS
DOCUMENT NUMBER: 130:142572
TITLE: Thermodynamic calculation of phase equilibria in the Ti-Co and Ni-Sn systems
AUTHOR(S): Nash, P.; **Choo, H.**; Schwarz, R. B.
CORPORATE SOURCE: Mechanical, Materials and Aerospace Engineering Dept., Illinois Institute of Technology, Chicago, IL, 60616, USA
SOURCE: Journal of Materials Science (1998), 33(20), 4929-4936
CODEN: JMTSAS; ISSN: 0022-2461
PUBLISHER: Kluwer Academic Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A thermodn. model for the titanium-cobalt system has been developed utilizing measured enthalpies of mixing of the liquid and evaluated

phase-diagram data. The free energies of the liquid, bcc, fcc, and hcp solid solns., and TiCo, Ti2Co, TiCo2, and TiCo3 compds. were calculated for a temperature of 400 K. The model and measured heats of crystallization have been used to predict the free energy of the metastable amorphous phase at 400 K, needed for comparison with exptl. results on the mech. alloying of Ti and Co. The predicted glass-forming range for alloys prepared by mech. alloying is from 10 to 81.5 atomic % Co. A similar approach was adopted for modeling the Ni-Sn system to calculate the free energies of Ni3Sn, and Ni3Sn2, and the liquid (amorphous) and fcc solid solns. in the nickel-rich region at 240 K. In this system the inclusion of the magnetic contribution to the free energy of the Ni-rich fcc solid solution is important in interpreting the results of mech. alloying. A simple transformation of the free-energy curves is proposed, which assists in the graphical identification of the glass-forming ranges.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 42 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:283443 HCAPLUS
DOCUMENT NUMBER: 129:36277
TITLE: Epoxyalkanoyls as novel ACE inhibitors
AUTHOR(S): **Choo, Hea-Young P.**; Yoon, Hea-Ran; Park, Hwha-Soon; Kim, Dong-Hyun; Park, Jongsei; Kim, Dong H.
CORPORATE SOURCE: School Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Archives of Pharmacal Research (1998), 21(2), 168-173
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Coupling of unsatd. carboxylic acids with amino acids followed by epoxidn. with dimethyldioxirane gave the epoxyalkanoyls with high yield. The inhibitory activity of the synthesized compds. on angiotensin converting enzyme was IC50 values of 0.06-5.5 μM.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 43 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:442631 HCAPLUS
DOCUMENT NUMBER: 122:205365
TITLE: Simultaneous quantitation of acetylcholine and choline in rat brain using pyrolysis/GC/NPD
AUTHOR(S): **Choo, Hea-Young**; Kim, Myung hee
CORPORATE SOURCE: School Pharmacy, Ewha Womans University, Seoul, 120-750, S. Korea
SOURCE: Korean Journal of Toxicology (1994), 10(2), 221-5
CODEN: KJTOEA; ISSN: 0258-2368
PUBLISHER: Korean Society of Toxicology
DOCUMENT TYPE: Journal
LANGUAGE: Korean
AB A sensitive method for the determination of acetylcholine (Ach) and choline (Ch) in rat brain was developed using pyrolysis/GC/NPD, and then the changes in cholinergic neurotransmitter levels by carbon monoxide intoxication were studied. After rats were exposed to 5000 ppm carbon monoxide for 30 min, the amts. of Ach and Ch in rat cerebral cortex were measured using pyrolysis/GC/NPD. The concentration of Ach and Ch was significantly decreased by

30% and 61% resp. after carbon monoxide intoxication and this effect was reversed by pretreatment with panaxatriol. However, pretreatment with ginseng total saponin and panaxadiol was not effective.

L24 ANSWER 44 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:548262 HCAPLUS
DOCUMENT NUMBER: 121:148262
TITLE: Tissue concentration of xylazine and its metabolites in rats
AUTHOR(S): **Choo, Hea Young P.**
CORPORATE SOURCE: Sch. Pharm., Ewha Womans Univ., Seoul, 120-750, S. Korea
SOURCE: Korean Journal of Toxicology (1993), 9(2), 147-52
CODEN: KJTOEA; ISSN: 0258-2368
DOCUMENT TYPE: Journal
LANGUAGE: Korean
AB Xylazine was eliminated very rapidly after administration to rats and was not detected in the organs after 10 h. However p-hydroxyxylazine, a main metabolite of xylazine in urine, was detected for ≤48 h in the liver at concns. of 0.37-2.58 mg/g tissue. 2,6-Dimethylisothiocyanate, another metabolite of xylazine and a possible toxicant, was detected in low concns. for ≤2 h in the liver, kidneys and muscles. This metabolite was easily distributed in the organs because of its higher lipophilicity than the p-hydroxylated metabolite.

L24 ANSWER 45 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:269966 HCAPLUS
DOCUMENT NUMBER: 120:269966
TITLE: Epoxidation of β,γ-unsaturated carboxylic acids by dimethyldioxirane
AUTHOR(S): **Choo, Hea Young Park**
CORPORATE SOURCE: Sch. Pharm., Ewha Womans Univ., Seoul, 120-750, S. Korea
SOURCE: Bulletin of the Korean Chemical Society (1994), 15(2), 104-5
CODEN: BKCSDE; ISSN: 0253-2964
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:269966
AB The title reaction with acids such as 3-butenoic acid gave 51-96% yields of epoxides such as carboxymethyloxirane.

L24 ANSWER 46 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:525981 HCAPLUS
DOCUMENT NUMBER: 117:125981
TITLE: Quantitation of barbiturates in urine by GC/MS and its comparison to fluoroescence polarization immunoassay
AUTHOR(S): **Choo, Hea Young P.**; Choi, Jeongeun; Choi, Myung Ja; Song, Eun Young; Park, Jongsei
CORPORATE SOURCE: Doping Control Cent., Korean Inst. Sci. and Technol., Seoul, 136-791, S. Korea
SOURCE: Korean Journal of Toxicology (1991), 7(1), 29-35
CODEN: KJTOEA; ISSN: 0258-2368
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Barbiturates were screened in urine specimens by fluorescence polarization immunoassay (FPIA) and the pos. samples were confirmed and identified by the more definitive gas chromatog.-mass spectrometry (GC/MS) method. Fifteen pos. samples that have barbiturate values >0.5 μg/mL were analyzed by the GC/MS method. Eight samples were identified as

phenobarbital and five samples were identified as crotilbarbitone. Phenobarbital showed the peak at 4.0 min retention time with the characteristic peaks of m/z 232, 117, 175, and 260 after methylation. Crotilbarbitone showed strong peak of the characteristic ions m/z 212, 181, 156, 55, and 141 without methylation. When comparing the phenobarbital values obtained by the FPIA and the GC/MS method, the FPIA method generates higher values than the GC/MS method. Apparently, the FPIA could determine both phenobarbital and the structurally similar phenobarbital metabolites together.

L24 ANSWER 47 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:484774 HCAPLUS
DOCUMENT NUMBER: 117:84774
TITLE: Screening of benzodiazepines in urine by the immunoassay and quantitation by GC-NPD method
AUTHOR(S): Park, Jongsei; Choi, Jeongeun; Choi, Myung Ja; Song, Eun Young; **Choo, Hea Young P.**
CORPORATE SOURCE: Doping Control Cent., Korea Inst. Sci. Technol., Seoul, 136-791, S. Korea
SOURCE: Korean Journal of Toxicology (1991), 7(1), 21-7
CODEN: KJTOEA; ISSN: 0258-2368
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors developed a simple method to determine benzodiazepines in biol. samples using electron-capture detectors and nitrogen-phosphorus detectors (NPD). The extraction of 13 benzodiazepines in urine at pH 9.5 with toluene and its anal. in GC/NPD showed the peaks in 9-16 min. In this retention time range, the biol. background was fairly low and the drugs could be identified in low concns. The benzodiazepines in urine samples were screened by the fluorescence polarization immunoassay and pos. samples were confirmed by the GC/NPD method. The results showed that benzodiazepines in addition to their metabolites were easily identified as oxazepam, nordiazepam, or medazepam by the GC/NPD method. This procedure is simple and sensitive and can be used in the screening of benzodiazepines for quick identification and quantitation of individual benzodiazepines after a preliminary screening by the immunoassay method.

L24 ANSWER 48 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:431488 HCAPLUS
DOCUMENT NUMBER: 117:31488
TITLE: Metastable phases in the design of structural intermetallics
AUTHOR(S): Nash, P.; Kim, H.; **Choo, H.**; Ardy, H.; Hwang, S. J.; Nash, A. S.
CORPORATE SOURCE: Met. Mater. Eng. Dep., Illinois Inst. Technol., Chicago, IL, 60616, USA
SOURCE: Materials Science Forum (1992), 88-90(Mech. Alloying), 603-10
CODEN: MSFOEP; ISSN: 0255-5476
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 26 refs. Work on the mech. alloying of TiAl-, TiCo-, and NiAl-base alloys is described. Powders are produced on a small scale in a SPEX mill and on a larger scale in a Szegvari attritor mill. The powders produced are either amorphous or microcryst. and contain a fine dispersion of oxides or carbides depending upon the milling conditions and alloy composition These powders are consolidated in a variety of ways including hot pressing and hot extrusion. Mech. properties of the materials are determined by compression testing from room temperature to 1300K and in damping expts. The

design philosophy of using metastable phases for the production of structural intermetallic parts for both low- and high-temperature applications are discussed.

L24 ANSWER 49 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:230897 HCAPLUS
DOCUMENT NUMBER: 112:230897
TITLE: Analysis of anabolic steroids using GC/MS with selected ion monitoring
AUTHOR(S): Chung, Bong Chul; **Choo, Hea Young P.**; Kim, Tae Wook; Eom, Khee Dong; Kwon, Oh Seung; Suh, Jawon; Yang, Jongsoon; Park, Jongsei
CORPORATE SOURCE: Doping Control Cent., Korea Inst. Sci. Technol., Seoul, S. Korea
SOURCE: Journal of Analytical Toxicology (1990), 14(2), 91-5
CODEN: JATOD3; ISSN: 0146-4760
DOCUMENT TYPE: Journal
LANGUAGE: English
AB GC-mass spectrometry (MS) with selected ion monitoring was used for the screening of 18 anabolic steroids banned by the International Olympic Committee. The steroids are analyzed in 2 nonconjugated (free) or conjugated fraction. The wet procedure of extracting steroids from urine consists of an initial isolation of lipophilic compds. on a column packed with Amberlite XAD-2 resin, followed by enzymic hydrolysis with β-glucuronidase from Escherichia coli. After extraction, the hydrolyzed steroids are derivatized to the corresponding trimethylsilyl ethers. The derivatized steroids are analyzed by GC/mass spectrometry with selected ion monitoring of their characteristic ions. It takes 12 and 26 min to run GC-MS and edit the raw data for nonconjugated and conjugated fractions, resp.

L24 ANSWER 50 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:210455 HCAPLUS
DOCUMENT NUMBER: 112:210455
TITLE: Study of the metabolism of phenothiazines: determination of N-demethylated phenothiazines in urine
AUTHOR(S): **Choo, Hea Young P.**; Shin, Yunsuk O.; Park, Jongsei
CORPORATE SOURCE: Doping Control Cent., Korea Inst. Sci. Technol., Seoul, S. Korea
SOURCE: Journal of Analytical Toxicology (1990), 14(2), 116-19
CODEN: JATOD3; ISSN: 0146-4760
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Phenothiazine drugs (chlorpromazine, promazine, promethazine, propiomazine, propionylpromazine, trifluoperazine, and trimeprazine) were reacted with m-chloroperbenzoic acid and N-demethylated phenothiazines were obtained in moderate yields. The mass spectra of the N-demethylated phenothiazines showed either m/z 44 and 72 or m/z 58 as characteristic ions depending on their side chain. The N-demethylated propiomazine was identified as a metabolite of propiomazine from the urine of a rat given propiomazine orally.

L24 ANSWER 51 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:193307 HCAPLUS
DOCUMENT NUMBER: 112:193307
TITLE: Quantitative determination of stanozolol and its metabolite in urine by gas chromatography/mass spectrometry

AUTHOR(S): **Choo, Hea Young P.**; Kwon, Oh Seung; Park, Jongsei
CORPORATE SOURCE: Doping Control Cent., Korea Adv. Inst. Sci. Technol., Seoul, 144-29, S. Korea
SOURCE: Journal of Analytical Toxicology (1990), 14(2), 109-12
CODEN: JATOD3; ISSN: 0146-4760
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Stanozolol and 3'-hydroxystanozolol in human urine was determined after oral administration of stanzolol. A gas chromatograph/mass selective detector equipped with a capillary column was used for these detns. The GC/mass spectrometry was operated in the SI mode, and m/z 581, 669, and 315 were monitored for stanzolol, 3'-hydroxystanzolol, and calusterone (internal standard), resp. The detection limit was .apprx.1 ng/mL for both steroids. The maximum secretion rate of stanzolol was reached in 8 h and the maximum of 3'-hydroxystanozolol in 19 h. However, only 3% of the administered amount was recovered in urine.

L24 ANSWER 52 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:417822 HCAPLUS
DOCUMENT NUMBER: 111:17822
TITLE: Quantitation of oxandrolone (a synthetic anabolic steroid) in human urine by GC/MS
AUTHOR(S): Park, Jongsei; Kwon, Ohseung; Suh, Jawon; **Choo, Hea Young P.**
CORPORATE SOURCE: Doping Control Cent., Korean Adv. Inst. Sci. Technol., Seoul, 135-090, S. Korea
SOURCE: Korean Journal of Toxicology (1988), 4(2), 117-29
CODEN: KJTOEA; ISSN: 0258-2368
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A sensitive method for the quantitation of oxandrolone in urine was developed using gas chromatog./mass spectroscopy (GC/MS). After oral administration of 10 mg oxandrolone, oxandrolone excreted in urine as unchanged form was extracted in ether and derivatized to its O-trimethylsilyl (TMS) derivative Oxandrolone excreted in urine as glucuronide conjugated form was extracted after enzymic hydrolysis and derivatized to its O-TMS. The amount of oxandrolone-O-TMS was measured in GC/MS with selected ion monitoring. Calusterone, a structurally similar anabolic steroid, was employed as an internal standard The oxandrolone concentration in urine was 50-900 ng/mL for 26 h and the excretion half life was 10.4 h. The relative standard deviation was 1.0-8.5%.

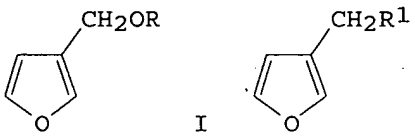
L24 ANSWER 53 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:207341 HCAPLUS
DOCUMENT NUMBER: 110:207341
TITLE: Metabolism and pharmacokinetic studies of propionylpromazine in horses
AUTHOR(S): Park, Jongsei; Shin, Yunsuk O.; **Choo, Hea Young P.**
CORPORATE SOURCE: Doping Control Cent., Korea Adv. Inst. Sci. Technol., Cheongryang, S. Korea
SOURCE: Journal of Chromatography (1989), 489(2), 313-21
CODEN: JOCRAM; ISSN: 0021-9673
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The propionylpromazine (drug used to improve racehorse performance) concns. in plasma after i.m. administration to horses were determined using gas

chromatog. with N-P detection. After hydrolysis by β-glucuronidase/arylsulfatase, the parent drug and 3 metabolites were detected in urine. The metabolites were identified as 2-(1-hydroxypropyl)promazine, 2-(1-propenyl)promazine, and 7-hydroxypropionylpromazine by gas chromatog.-mass spectrometry. No N-demethylated or sulfoxidated metabolites of propionylpromazine were observed in the horse urine.

L24 ANSWER 54 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:103893 HCAPLUS
DOCUMENT NUMBER: 104:103893
TITLE: Synthesis, toxicity and metabolism of simple 3-alkylfurans
AUTHOR(S): **Choo, Hea Young**
CORPORATE SOURCE: Univ. Kansas, Lawrence, KS, USA
SOURCE: (1984) 119 pp. Avail.: Univ. Microfilms Int., Order No. DA8513828
From: Diss. Abstr. Int. B 1985, 46(4), 1181
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L24 ANSWER 55 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:143178 HCAPLUS
DOCUMENT NUMBER: 98:143178
TITLE: A convenient synthesis for 3-alkyl- and 3-alkenylfurans, including perillene
AUTHOR(S): Wiley, Robert A.; **Choo, Hea Young**; McClellan, David
CORPORATE SOURCE: Dep. Med. Chem., Univ. Kansas, Lawrence, KS, 66045, USA
SOURCE: Journal of Organic Chemistry (1983), 48(7), 1106-7
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 98:143178
GI



I II

AB Treating furan I (R = 4-MeC6H4SO2), prepared from I (R = H), with R12CuLi (R1 = Me, Bu, Me2C:CHCH2) gave the corresponding title compds. II in 60, 45, and 15% yield.

L24 ANSWER 56 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:609905 HCAPLUS
DOCUMENT NUMBER: 97:209905
TITLE: The effect of nephrotoxic furans on urinary N-acetylglucosaminidase levels in mice
AUTHOR(S): Wiley, Robert A.; **Choo, Hea Young**; Traiger, George J.

CORPORATE SOURCE: Dep. Med. Chem., Univ. Kansas, Lawrence, KS, 66045, USA
SOURCE: Toxicology Letters (1982), 14(1-2), 93-6
CODEN: TOLED5; ISSN: 0378-4274
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

I

AB furan (I) [110-00-9], 2-ethylfuran [3208-16-0], 3-ethylfuran [67363-95-5], and 3-pentylfuran [6177-84-0] at 25-250 mg/kg decreased urinary N-acetylglucosaminidase (II) [9027-56-9] in mice in a dose-dependent manner. 3-methylthiophene [616-44-4] At 500 mg/kg had no apparent effect on urinary II. On the contrary, Na salicylate [54-21-7] (375 mg/kg) increased significantly urinary II.

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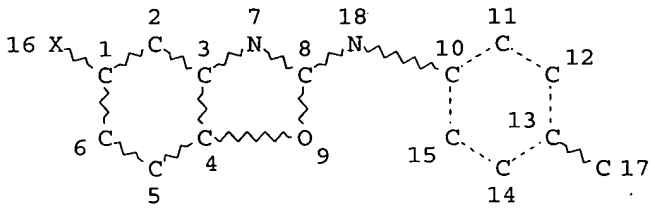
L15 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L17 7 SEA FILE=REGISTRY SSS FUL L15
L19 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L17
L21 57 SEA FILE=HCAPLUS ABB=ON PLU=ON "CHOO H"/AU OR ("CHOO H Y"/AU OR "CHOO H Y P"/AU) OR ("CHOO HEA YOUNG"/AU OR "CHOO HEA YOUNG P"/AU OR "CHOO HEA YOUNG PARK"/AU)
L22 445 SEA FILE=HCAPLUS ABB=ON PLU=ON "CHANG HYEUN WOOK"/AU OR CHANG H/AU OR CHANG H W/AU
L23 142 SEA FILE=HCAPLUS ABB=ON PLU=ON "YOON JU"/AU OR "YOON JU HEE"/AU OR YOON J/AU OR YOON J H/AU
L24 56 SEA FILE=HCAPLUS ABB=ON PLU=ON L21 NOT L19
L25 0 SEA FILE=HCAPLUS ABB=ON PLU=ON (L22 AND L23) NOT (L19 OR L24)
L26 131930 SEA FILE=HCAPLUS ABB=ON PLU=ON LEUKOTRIENE(W)RELATED(W)DISEASE OR ?ASTHMA OR ?PERTUSSIS OR ?PSORIASIS OR ?ARTHRITIS OR INFLAMMATORY(W)BOWEL(W)DISEASE OR CYSTIC(W)FIBROSIS OR ?BRONCHITIS OR ?GOUT OR ?SEPSIS
L27 72145 SEA FILE=HCAPLUS ABB=ON PLU=ON CARDIAC(W)ANAPHYLAXIS OR

CEREBROVASCULAR(W)CONVULSION OR ?ISCHEMIA OR ALLERGIC(W)RHINITI
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L28 71764 SEA FILE=HCAPLUS ABB=ON PLU=ON LEUKOTRIENE? OR ?ASTHMA OR "RESPIRATORY SYSTEM, DISEASE"/CV OR "LUNG, DISEASE"/CV OR "BRONCHI, DISEASE"/CV OR ASTHMA/CV OR "BRONCHIAL ASTHMA"/CV OR ANTIASTHMATICS/CV OR BRONCHODILATORS/CV

L29 47755 SEA FILE=HCAPLUS ABB=ON PLU=ON "LEUKOTRIENE ANTAGONISTS"/CV OR ?BROCHI? OR ?PERTUSSIS OR "WHOOPING COUGH"/CV OR PERTUSSIS/CV OR ?PSORIASIS OR "SKIN, DISEASE"/CV OR PSORIASIS/CV OR "PSORIASIS VULGARIS"/CV OR "SKIN (L) PSORIASIS"/CV

L30 48508 SEA FILE=HCAPLUS ABB=ON PLU=ON ?ARTHRITIS OR 'RHEUMATIC DISEASES'/CV OR ARTHRITIS/CV OR 'JOINT, ANATOMICAL (L) DISEASE, INFLAMMATION'/CV OR 'JOINT, ANATOMICAL (L) INFLAMMATIO N'/CV OR GOUT/CV OR 'RHEUMATOID ARTHRITIS'/CV OR ANTIARTHRITIC S/CV

L31 20765 SEA FILE=HCAPLUS ABB=ON PLU=ON INFLAMMATORY(W) BOWEL(W) DISEASE OR 'INFLAMMATORY BOWEL DISEASE'/CV OR 'INTESTINE, DISEASE (L) INFLAMMATORY'/CV OR CYSTIC(W) FIBROSIS OR 'CYSTIC FIBROSIS'/CV OR 'FIBROCYSTIC DISEASE'/CV

L32 27581 SEA FILE=HCAPLUS ABB=ON PLU=ON ?BRONCHITIS OR BRONCHITIS/CV OR 'BRONCHI, DISEASE (L) BRONCHITIS'/CV OR 'INFLAMMATION (L) BRONCHITIS'/CV OR ?GOUT OR ?SEPSIS OR SEPSIS/CV OR "SEPSIS AND SEPTICEMIA"/CV OR SEPTICEMIA/CV OR BACTEREMIA/CV OR ENDOTOXEMI A/CV OR PARASITEMIA/CV OR VIREMIA/CV

L33 11011 SEA FILE=HCAPLUS ABB=ON PLU=ON CARDIAC(W) (MYOISCHEMIA OR ANAPHYLAXIS) OR "CEREBROVASCULAR(W) CONVULSION OR ANAPHYLAXIS"/CV OR ?ANAPHYLAXIS OR "ANAPHYLAXIS (L) CARDIAC"/CV OR "HEART(L) ANAPHYLAXIS"/CV OR "CARDIAC ANAPHYLAXIS"/CV OR "HEART DISEASES (L) ANAPHYLAXIS"/CV

L34 119492 SEA FILE=HCAPLUS ABB=ON PLU=ON ?ISCHEMIA OR ISCHEMIA/CV OR "BLOOD VESSEL, DISEASE (L) ISCHEMIA"/CV OR "BLOOD VESSEL (L) ISCHEMIA"/CV OR "ISCHEMIA CARDIOVASCULAR SYSTEM"/CV OR "ANTI-ISCHEMIC AGENTS"/CV OR CIRCULATION/CV

L35 3821 SEA FILE=HCAPLUS ABB=ON PLU=ON ALLERGIC(W) RHINITIS OR "ALLERGIC RHINITIS"/CV OR "ALLERGY (L) ALLERGIC RHINITIS"/CV OR "INFLAMMATION (L) ALLERGIC RHINITIS"/CV OR "NOSE, DISEASE (L) ALLERGIC RHINITIS"/CV

L36 24 SEA FILE=HCAPLUS ABB=ON PLU=ON (L22 OR L23) AND (L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35)

L37 23 SEA FILE=HCAPLUS ABB=ON PLU=ON (L25 OR L36) NOT (L19 OR L24)

=> d ibib abs l37 1-23

L37 ANSWER 1 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:623246 HCAPLUS

TITLE: Anti-inflammatory activity of Ailanthus altissima in ovalbumin-induced lung inflammation

AUTHOR(S): Jin, Mei Hua; Yook, Jumin; Lee, Eunkyung; Lin, Chang Xin; Quan, Zhejiu; Son, Kun Ho; Bae, Ki Hwan; Kim, Hyun Pyo; Kang, Sam Sik; **Chang, Hyeun Wook**

CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, 712-749, S. Korea

SOURCE: Biological & Pharmaceutical Bulletin (2006), 29(5), 884-888
CODEN: BPBLEO; ISSN: 0918-6158

PUBLISHER: Pharmaceutical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

AB As part of an ongoing investigation to find bioactive medicinal herbs exerting anti-inflammation activity, the effect of an ethanol extract from the parts of Ailanthus altissima (Simaroubaceae) was evaluated in both in vitro and in in vivo system. The ethanol extract of A. altissima (EAa) inhibited generation of the cyclooxygenase-2 (COX-2) dependent phases of prostaglandin D2 in bone marrow-derived mast cells (BMMC) in a concentration-dependent manner with an IC50 value of 214.6 μg/mL. However, this compound did not inhibit COX-2 protein expression up to a concentration of 400 μg/mL in the BMMC, indicating that EAa directly inhibits COX-2 activity. In addition, EAa inhibited **leukotriene** C4 production with an IC50 value of 25.7 μg/mL. Furthermore, this compound inhibited degranulation reaction in a dose dependent manner, with an IC50 value of 27.3 μg/mL. Ovalbumin (OVA)-sensitized mice were orally pretreated with EAa before aerosol challenges. EAa reduced the eosinophil infiltration into the airway and the eotaxin, IL-4, and IL-13 mRNA expression levels. These results suggest that the anti-inflammation activity of A. altissima in OVA-induced lung inflammation may occur in part via the down regulation of TH2 cytokines and eotaxin transcripts as well as the inhibition of inflammatory mediators.

L37 ANSWER 2 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:519348 HCAPLUS
TITLE: Naturally occurring biflavonoid, ochanflavone, inhibits Cyclooxygenases-2 and 5-lipoxygenase in mouse bone marrow-derived mast cells
AUTHOR(S): Son, Min Jung; Moon, Tae Chul; Lee, Eun Kyung; Son, Kun Ho; Kim, Hyun Pyo; Kang, Sam Sik; Son, Jong Keun; Lee, Seung Ho; **Chang, Hyeun Wook**
CORPORATE SOURCE: Skeletal Diseases Genome Research Center, Kyungpook National University, Taegu, 702-701, S. Korea
SOURCE: Archives of Pharmacal Research (2006), 29(4), 282-286
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ochnaflavone is a medicinal herbal product isolated from Lonicera japonica that inhibits cyclooxygenase-2 (COX-2) dependent phases of prostaglandin D2 (PGD2) generation in bone marrow-derived mast cells (BMMC) in a concentration-dependent manner with IC50 values of 0.6 μM. Western blotting probed with specific anti-COX-2 antibodies showed that the decrease in quantity of the PGD2 product was accompanied by a decrease in the COX-2 protein level. In addition, this compound consistently inhibited the production of **leukotriene** C4 (LTC4) in a dose dependent manner, with an IC50 value of 6.56 μM. These results demonstrate that ochnaflavone has a dual cyclooxygenase-2/5-lipoxygenase inhibitory activity. Furthermore, this compound strongly inhibited degranulation reaction in a dose dependent manner, with an IC50 value of 3.01 μM. Therefore, this compound might provide a basis for novel anti-inflammatory drugs.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 3 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:378900 HCAPLUS
DOCUMENT NUMBER: 145:20709
TITLE: Anti-asthmatic activity of an ethanol extract from Saururus chinensis
AUTHOR(S): Lee, Eunkyung; Haa, Kyungmi; Yook, Ju Min; Jin, Mei Hua; Seo, Chang Seob; Son, Kun Ho; Kim, Hyun Pyo; Bae,

Ki Hwan; Kang, Sam Sik; Son, Jong Keun; **Chang, Hyeun Wook**
CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyeongsan, 712-749, S. Korea
SOURCE: Biological & Pharmaceutical Bulletin (2006), 29(2), 211-215
CODEN: BPBLEO; ISSN: 0918-6158
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB As an attempt to find bioactive medicinal herbs exerting anti-asthmatic activity, the effects of an EtOH extract from the parts of Saururus chinensis were evaluated in both in vitro and in vivo. The EtOH extract of S. chinensis (ESC) inhibited generation of the cyclooxygenase-2 (COX-2) dependent phases of prostaglandin D2 in bone marrow-derived mast cells in a concentration-dependent manner with an IC50 value of 14.3 μg/mL. ESC also inhibited **leukotriene** C4 production with an IC50 value of 0.3 μg/mL. This demonstrates that ESC has COX-2/5-lipoxygenase dual inhibitory activity. In addition, this compound inhibited degranulation reaction in a dose dependent manner, with an IC50 value of 1.3 μg/mL. An ovalbumin induced mouse asthmatic animal model was used to determine its in vivo anti-asthmatic activity. The oral administration (50-200 mg/kg) of ESC reduced the number of infiltrated eosinophil in a bronchoalveolar lavage fluid. Furthermore, ESC (100 mg/kg) inhibited the eotaxin and IL-4 mRNA expression levels. These results suggest that the anti-asthmatic activity of S. chinensis might in part occur via the inhibition of eicosanoid generation, degranulation as well as the down regulation of IL-4 and eotaxin mRNA expression.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 4 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:66491 HCAPLUS
DOCUMENT NUMBER: 144:121287
TITLE: Ginkgetin, a biflavone from Ginko biloba leaves, inhibits cyclooxygenases-2 and 5-lipoxygenase in mouse bone marrow-derived mast cells
AUTHOR(S): Son, Jong Keun; Son, Min Jung; Lee, Enkyung; Moon, Tae Chul; Son, Kun Ho; Kim, Cheorl-Ho; Kim, Hyun Pyo; Kang, Sam Sik; **Chang, Hyeun Wook**
CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, 712-749, S. Korea
SOURCE: Biological & Pharmaceutical Bulletin (2005), 28(12), 2181-2184
CODEN: BPBLEO; ISSN: 0918-6158
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ginkgetin, a biflavone from Ginkgo biloba leaves, was previously reported to be a phospholipase A2 inhibitor and this compound showed the potent antiarthritic activity in rat adjuvant-induced **arthritis** as well as analgesic activity. This investigation was carried out to find effects on cyclooxygenase-2 (COX-2) in vitro effect. Ginkgetin inhibits COX-2 dependent phases of prostaglandin D2 (PGD2) generation in bone marrow-derived mast cells (BMMC) in a concentration-dependent manner with IC50 values of 0.75 μM. Western blotting probed with specific anti-COX-2 antibodies showed that the decrease in quantity of the PGD2 product was accompanied by a decrease in the COX-2 protein level. In addition, this compound consistently inhibited the production of **leukotriene** C4 (LTC4) in a dose dependent manner, with an IC50 value of 0.33 μM.

These results demonstrate that ginkgetin has a dual cyclooxygenase-2/5-lipoxygenase inhibitory activity. Furthermore, this compound also inhibited degranulation reaction in a dose dependent manner, with an IC50 value of 6.52 μM. Therefore, this compound might provide a basis for novel anti-inflammatory agents.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 5 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1328536 HCAPLUS
DOCUMENT NUMBER: 144:69735
TITLE: Novel propenone derivatives containing aromatic or heterocyclic rings, a manufacturing process thereof and a composition containing the same using as an antiinflammatory agent
INVENTOR(S): **Chang, Hyeun Wook**; Jahng, Yurng Dong; Lee, Eung-Seok; Kim, Jung-Ae; Jeong, Tae Cheon
PATENT ASSIGNEE(S): Yeungnam Educational Foundation, S. Korea
SOURCE: PCT Int. Appl., 50 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005121129	A1	20051222	WO 2005-KR1672	20050603

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: KR 2004-41723 A 20040608
OTHER SOURCE(S): MARPAT 144:69735
AB The present invention is related to novel propenone derivs. of general formula A-CO-C(R')=C-B (I, wherein A and B are independently (un)substituted 5 or 6 member aromatic or heterocyclic ring; R'= H, halo, C1-C4 alkyl and ketone group substituted with C1-C4 alkyl), a manufacturing process thereof and a composition containing the same using as an anti-inflammatory agent. I show potent anti-inflammatory activity confirmed by various assays, for example, the inhibition of COX and 5-LOX activity. Thus, 1-furan-2-yl-3-pyridin-2-ylpropenone, prepared from 2-pyridinecarboxaldehyde and 2-acetylfuran, was more potent than acetyl salicylic acid in the mouse writhing test.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 6 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:343034 HCAPLUS
DOCUMENT NUMBER: 142:475660
TITLE: Antiinflammatory activity of astilbic acid from

Astilbe chinensis
AUTHOR(S): Moon, Tae Chul; Lin, Chang Xiu; Lee, Joo Sang; Kim, Dong Seon; Bae, KiHwan; Son, Kun Ho; Kim, Hyun Pyo; Kang, Sam Sik; Son, Jong Keun; **Chang, Hyeun Wook**
CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, 712-749, S. Korea
SOURCE: Biological & Pharmaceutical Bulletin (2005), 28(1), 24-26
CODEN: BPBLEO; ISSN: 0918-6158
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB This study examined the effect of astilbic acid (3β,6β-dihydroxyolean-12-en-27-oic acid), which is a herbal medicine isolated from Astilbe chinensis. Astilbic acid inhibited 5-lipoxygenase (5-LOX)-dependent **leukotriene** C4 (LTC4) generation in bone marrow-derived mast cells in a concentration-dependent manner with an IC50 value of 2.1 μM. In addition, astilbic acid was tested in a rat passive cutaneous **anaphylaxis** (PCA) reaction assay by administering 10 to 50 mg/kg i.p. Astilbic acid dose dependently inhibited the PCA reaction, which was activated by anti-dinitrophenyl (DNP) IgE. Furthermore, this compound inhibited mouse acetic acid-induced writhing (47-62% inhibition at 0.4-50 mg/kg) after being administered orally, while aspirin (200 mg/kg) showed 62% inhibition. These results suggest that astilbic acid may be beneficial in regulating various inflammatory processes.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 7 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1039967 HCAPLUS
DOCUMENT NUMBER: 142:106395
TITLE: Anti-inflammatory plant flavonoids and cellular action mechanisms
AUTHOR(S): Kim, Hyun Pyo; Son, Kun Ho; **Chang, Hyeun Wook**; Kang, Sam Sik
CORPORATE SOURCE: College of Pharmacy, Kangwon National University, Chunchon, 200-701, S. Korea
SOURCE: Journal of Pharmacological Sciences (Tokyo, Japan) (2004), 96(3), 229-245
CODEN: JPSTGJ; ISSN: 1347-8613
PUBLISHER: Japanese Pharmacological Society
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Plant flavonoids show anti-inflammatory activity in vitro and in vivo. Although not fully understood, several action mechanisms are proposed to explain in vivo anti-inflammatory action. One of the important mechanisms is an inhibition of eicosanoid generating enzymes including phospholipase A2, cyclooxygenases, and lipoxygenases, thereby reducing the concns. of prostanoids and **leukotrienes.** Recent studies have also shown that certain flavonoids, especially flavone derivs., express their anti-inflammatory activity at least in part by modulation of proinflammatory gene expression such as cyclooxygenase-2, inducible nitric oxide synthase, and several pivotal cytokines. Due to these unique action mechanisms and significant in vivo activity, flavonoids are considered to be reasonable candidates for new anti-inflammatory drugs. To clearly establish the therapeutic value in inflammatory disorders, in vivo anti-inflammatory activity, and action mechanism of varieties of

flavonoids need to be further elucidated. This review summarizes the effect of flavonoids on eicosanoid and nitric oxide generating enzymes and the effect on expression of proinflammatory genes. In vivo anti-inflammatory activity is also discussed. As natural modulators of proinflammatory gene expression, certain flavonoids have a potential for new anti-inflammatory agents.

REFERENCE COUNT: 107 THERE ARE 107 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 8 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:970378 HCAPLUS
DOCUMENT NUMBER: 142:204589
TITLE: Ligularia fischeri turcz. extract having antiinflammatory action and fraction thereof
INVENTOR(S): Bae, Gi Hwan; **Chang, Hyeun Wook**; Kang, Sam Sik; Kim, Hyun Pyo; Son, Kun Ho
PATENT ASSIGNEE(S): S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent
LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003001658	A	20030108	KR 2001-36462	20010626

PRIORITY APPLN. INFO.: KR 2001-36462 20010626

AB A pharmaceutical composition containing a Ligularia fischeri Turcz. extract and a fraction thereof which directly inhibit the activity of COX-2 as well as expression thereof as an effective ingredient is provided. The composition shows antiinflammatory effects by inhibiting the formation of prostaglandin E2 as an inflammation-inducing eicosanoid, it can be thus significantly used in chronic inflammatory diseases such as acute inflammation and rheumatic **arthritis**. Ligularia fischeri Turcz. is soaked in a single solvent or two or more mixed solvents selected from the group consisting of water, C1-4 lower alc., glycerol, propylene glycol, 1,3-butylene glycol, ethylacetate, benzene, hexane, di-Et ether and dichloromethane, extracted and concentrated after filtering. For an example, 250g Ligularia fischeri Turcz. extract is mixed with 175.9g lactose, 180g potato starch and 32g colloidal silicic acid, the mixture is added with 10% gelatin solution, ground into a size of 14 meshes and added with 160g potato starch, 50g talc and 5g magnesium stearate to produce a tablet containing 100g effective ingredient.

L37 ANSWER 9 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:942312 HCAPLUS
DOCUMENT NUMBER: 142:183289
TITLE: Prenylated flavonoid derivatives having antiinflammatory properties and Sophora flavescens extract containing same
INVENTOR(S): **Chang, Hyeun Wook**; Kang, Sam Sik; Kim, Hyun Pyo; Son, Kun Ho
PATENT ASSIGNEE(S): S. Korea
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given
CODEN: KRXXA7
DOCUMENT TYPE: Patent

LANGUAGE: Korean
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2002048703	A	20020624	KR 2000-77932	20001218
PRIORITY APPLN. INFO.:			KR 2000-77932	20001218

AB A prenylated flavonoid derivative extracted from Sophora flavescens and a new use of the Sophora flavescens extract and a methylene chloride fraction thereof as an antiinflammatory agent are provided. Therefore, they can be significantly used in chronic antiinflammatory diseases such as acute inflammation and rheumatic **arthritis.** Sophora flavescens is extracted in one or two or more solvents selected from water, C1-4 lower alc., glycerol, propylene glycol, 1,3-butylene glycol, methylacetate, benzene, hexane, di-Et ether and methylene chloride, and the extract is suspended in distilled water and extracted in methylene chloride to produce a methylene fraction. An antiinflammatory agent contains a flavonoid derivative of formula 1 and a pharmaceutically acceptable salt thereof as an effective component. In formula, R1 is H or CH3; R2 is H or CH3; R3 is OH or OCH3 in which n is 0 to 3.

L37 ANSWER 10 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:878280 HCAPLUS
DOCUMENT NUMBER: 141:337295
TITLE: Composition for skin whitening containing machilin A
INVENTOR(S): Kim, Won-chan; Kim, Ho-jeong; Kim, Cheong-taek; Jin, Mu-hyun; Kang, Sang-jin; Lee, Seung-ho; **Chang, Hyeun-wook**; Son, Jong-keun
PATENT ASSIGNEE(S): Lg Household & Healthcare Co., Ltd., S. Korea
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004089328	A1	20041021	WO 2003-KR738	20030412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003225373	A1	20041101	AU 2003-225373	20030412
PRIORITY APPLN. INFO.:			WO 2003-KR738 A	20030412

AB Disclosed is composition for skin whitening containing 0.000001 to 10 weight% of machilin A as an effective component. Machilin A shows no side effect on skin, and has a superior effect to inhibit pigmentation on skin by restraining melanin from being generated. Thus, the composition containing the same is effectively used for skin whitening. For example, an ointment for skin whitening contained machilin A 0.1%, di-Et sebacate 8%, spermaceti

5%, polyoxyethylene oleyl ether phosphate 6%, Sodium benzoate a needed, and vaseline to 100%.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 11 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:516945 HCAPLUS
DOCUMENT NUMBER: 141:46966
TITLE: Dual inhibition of cyclooxygenases-2 and 5-lipoxygenase by deoxypodophyllotoxin in mouse bone marrow-derived mast cells
AUTHOR(S): Lee, Seung Ho; Son, Min Jung; Ju, Hye Kyung; Lin, Chang Xiu; Moon, Tae Chul; Choi, Han-Gon; Son, Jong Keun; **Chang, Hyeun Wook**
CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, 712-749, S. Korea
SOURCE: Biological & Pharmaceutical Bulletin (2004), 27(6), 786-788
CODEN: BPBLEO; ISSN: 0918-6158
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Deoxypodophyllotoxin (Anthricin) is a medicinal herbal product isolated from Anthriscus sylvestris Hoffm. that inhibits cyclooxygenase-2 (COX-2) and COX-1-dependent phases of prostaglandin D2 (PGD2) generation in bone marrow-derived mast cells (BMMC) in a concentration-dependent manner with IC50 values of 1.89 μM and 65.3 μM, resp. This study also found that this compound inhibited COX-1 and 2-dependent conversion of the exogenous arachidonic acid to PGD2 in a dose-dependent manner with an IC50 values of 0.01 μM and 12.1 μM, resp. using a COX enzyme assay kit. However, this compound did not inhibit COX-2 protein expression up to a concentration of 30 μM in the BMMC, indicating that deoxypodophyllotoxin directly inhibits COX-2 activity. Furthermore, this compound consistently inhibited the production of **leukotriene** C4 (LTC4) in a dose dependent manner, with an IC50 value of 0.37 μM. These results demonstrate that deoxypodophyllotoxin has a dual cyclooxygenase-2 selective/5-lipoxygenase inhibitory activity, and therefore this compound might provide a basis for novel anti-inflammatory drugs.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 12 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:448688 HCAPLUS
DOCUMENT NUMBER: 141:199753
TITLE: Inhibition of nitric oxide and tumor necrosis factor-α (TNF-α) production by propenone compound through blockade of nuclear factor (NF)-κB activation in cultured murine macrophages
AUTHOR(S): Lee, Eung-Seok; Ju, Hye Kyung; Moon, Tae Churl; Lee, Eunkyung; Jahng, Yurngdong; Lee, Sung Ho; Son, Jong Keun; Baek, Suk-Hwan; **Chang, Hyeun Wook**
CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, 712-749, S. Korea
SOURCE: Biological & Pharmaceutical Bulletin (2004), 27(5), 617-620
CODEN: BPBLEO; ISSN: 0918-6158
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Lipopolysaccharide (LPS)-stimulated macrophages produce large amts. of nitric oxide (NO) by inducible nitric oxide synthase (iNOS). This is an important mechanism in macrophage-induced septic shock and inflammation. In the present study, we tested a synthetic propenone compound, 1-furan-2-yl-3-pyridin-2-yl-propenone (FPP-3) for its ability to inhibit the production of tumor necrosis factor-α (TNF-α) and an inducible enzyme, iNOS, in the LPS-stimulated murine macrophage-like cell line, RAW264.7. FPP-3 consistently inhibited nitric oxide (NO) and TNF-α production in a dose dependent manner, with IC50 values of 10.0 and 13.1 μM, resp. Western blotting probed with specific anti-iNOS antibodies showed that the decrease in quantity of the NO product was accompanied by a decrease in the iNOS protein level. In cells transiently transfected with nuclear factor (NF)-κB promoter-luciferase reporter construct, this compound clearly inhibited the LPS-stimulated NF-κB activation. Moreover, this compound inhibited IκB-α degradation in a concentration and time-dependent manner. These results indicate that FPP-3 inhibits NO production via inhibition of degradation of IκB-α through NF-κB activation.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 13 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:437796 HCAPLUS

DOCUMENT NUMBER: 141:762

TITLE: Deoxypodophyllotoxin, a naturally occurring lignan, inhibits the passive cutaneous **anaphylaxis** reaction

AUTHOR(S): Lin, Chang Xiu; Son, Min Jung; Ju, Hye Kyung; Moon, Tae Chul; Lee, Eunkyung; Kim, So Hee; Kim, Mi-Jeong; Son, Jong Keun; Lee, Seung Ho; **Chang, Hyeun Wook**

CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, S. Korea

SOURCE: Planta Medica (2004), 70(5), 474-476
CODEN: PLMEAA; ISSN: 0032-0943

PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study examined the effect of a podophyllotoxin derivative, deoxypodophyllotoxin (anthricin), which is a medicinal herb product isolated from Anthriscus sylvestris Hoffm. Deoxypodophyllotoxin was tested in a rat PCA (passive cutaneous **anaphylaxis**) assay by administering deoxypodophyllotoxin i.p. (1.0 to 10 mg/kg, i.p.) and i.v. (0.25 to 1.0 mg/kg, i.v.). Deoxypodophyllotoxin dose-dependently inhibited the PCA reaction activated by anti-dinitrophenyl (DNP) IgE. The PCA inhibitory activity of deoxypodophyllotoxin was stronger than those of prednisolone and indomethacin, which were used as pos. controls. These results suggest that deoxypodophyllotoxin may be beneficial in regulating the immediate-type allergic reaction.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 14 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:963248 HCAPLUS

DOCUMENT NUMBER: 140:40849

TITLE: Degranulation and cytokine expression in human cord blood-derived mast cells cultured in serum-free medium with recombinant human stem cell factor

AUTHOR(S): Moon, Tae Chul; Lee, Eunkyung; Baek, Suk-hwan;

Murakami, Makoto; Kudo, Ichiro; Kim, Nung Soo; Lee, Jong Myung; Min, Hae-ki; Kambe, Naotomo; **Chang, Hyeun Wook**
CORPORATE SOURCE: College of Pharmacy, Yeungnam University, Gyongsan, 712-749, S. Korea
SOURCE: Molecules and Cells (2003), 16(2), 154-160
CODEN: MOCEEK; ISSN: 1016-8478
PUBLISHER: Korean Society for Molecular and Cellular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Human cord blood-derived mast cells (HCMC) grown in medium with serum and recombinant human stem cell factor (rhSCF) with or without interleukin (IL)-6 are less mature than human skin mast cells (HSMC). We found that c-kit-pos. HCMC cultured for 8-10 wk with rhSCF in serum-free medium became sensitive to basic secretagogues and expressed the serine protease, chymase, which is preferentially expressed in HSMC. The HCMC release β-hexosaminidase (β-HEX) within 1 min of stimulation with compound 48/80 or substance P, and release was suppressed by **pertussis** toxin. Approx. 34% of the HCMC in the serum-free culture stained pos. with chymase antibody. Chymase and c-kit levels, and responsiveness to basic secretagogues, increased substantially after an addnl. 2 wk in a serum-free environment with rhIL-6 and rhSCF. Moreover, FcεRI-dependent activation of the HCMC resulted in induction of cytokines and cyclooxygenase-2. These results show that HCMC can differentiate into a phenotype morphol. and functionally similar to HSMC if exposed to SCF in serum-free medium.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 15 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:342083 HCAPLUS
DOCUMENT NUMBER: 139:173439
TITLE: Papyriflavonol A from Broussonetia papyrifera inhibits the passive cutaneous **anaphylaxis** reaction and has a secretory phospholipase A2-inhibitory activity
AUTHOR(S): Kwak, Wie Jong; Moon, Tae Churl; Lin, Chang Xiu; Rhyn, Hyeun Gee; Jung, Hyejin; Lee, Eunkyung; Kwon, Dong Yeul; Son, Kun Ho; Kim, Hyun Pyo; Kang, Sam Sik; Murakami, Makoto; Kudo, Ichiro; **Chang, Hyeun Wook**
CORPORATE SOURCE: SK Chemicals, Kyungki-do, 440-301, S. Korea
SOURCE: Biological & Pharmaceutical Bulletin (2003), 26(3), 299-302
CODEN: BPBLEO; ISSN: 0918-6158
PUBLISHER: Pharmaceutical Society of Japan
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Papyriflavonol A, a new prenylated flavonol isolated from Broussonetia papyrifera, selectively inhibits recombinant human secretory phospholipase A2s (sPLA2s). Papyriflavonol A was found to inhibit human group IIA and V sPLA2s potently and irreversibly in a dose-dependent manner, with resp. IC50 values of 3.9 and 4.5 μM. The inhibitory effects of papyriflavonol A against bovine group IB (IC50 of 76.9 μM) and the human group X (IC50 of 225 μM) sPLA2s were weaker than those against human group IIA and V sPLA2s, and human group IIF sPLA2 was not inhibited. In addition, papyriflavonol A potently inhibited the stimulus-induced production of **leukotriene** C4 with an IC50 value of approx. 0.64 μM in mouse bone marrow-derived mast cells. In addition, papyriflavonol A

significantly reduced IgE-dependent passive cutaneous **anaphylaxis** in rats. These results indicate that papyriflavonol A provides a basis for novel types of antiinflammatory drugs.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 16 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:979758 HCAPLUS
DOCUMENT NUMBER: 138:200152
TITLE: Effect of green tea catechin on arachidonic acid cascade in chronic cadmium-poisoned rats
AUTHOR(S): Choi, Jeong-Hwa; **Chang, Hyeun-Wook**; Rhee, Soon-Jae
CORPORATE SOURCE: Department of Food Science and Nutrition, Catholic University of Daegu, Kyongsan-si, S. Korea
SOURCE: Asia Pacific Journal of Clinical Nutrition (2002), 11(4), 292-297
CODEN: APJNFQ; ISSN: 0964-7058
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The purpose of this study was to investigate the effect of green tea catechin on the cyclooxygenase and lipoxygenase pathways in chronic cadmium-poisoned rats. Sprague-Dawley male rats weighing 100 ± 10 g were randomly assigned to one normal and three cadmium-poisoned groups. The cadmium groups were classified as catechin-free diet group (Cd-0C), 0.25% catechin diet group (Cd-0.25C) and 0.5% catechin diet group (Cd-0.5C), in accordance with the level of catechin supplement. The phospholipase A2 activity was remarkably increased 117% in the Cd-0C group and 60% in the Cd-0.25C group compared with the normal group, and the level in the Cd-0.5C group was the same as the normal group. Activity of platelet cyclooxygenase increased 284% in the Cd-0C group, 147% in the Cd-0.25C group and 193% in the Cd-0.5C group. The synthesis of platelet thromboxane A2 (TXA2) increased 157% in the Cd-0C group and 105% in the Cd-0.25C group, compared with the normal group. The Cd-0.5C group showed the same level as the normal group. Prostacyclin (PGI2) formation in the aorta decreased 24% in the Cd-0C group and 18% in the Cd-0.25C group. The ratio of PGI2/TXA2, the thrombocyte synthesis index, decreased 70% in the Cd-0C group and 59% in the Cd-0.25C group. The activity of 5'-lipoxygenase in the polymorphonuclear leukocyte was increased 40% in the Cd-0C group as compared with the normal group. Catechin-supplemented Cd-0.25C and Cd-0.5C groups showed the level of the normal group. In this study, the observed content of **leukotriene** B4, which induces the inflammatory process, increased 54% in the Cd-0C group, and in catechin-supplemented groups, showed the same level as in the normal group. The serum peroxide value increased 60% in the Cd-0C group compared with the normal group; but in the Cd-0.5C group, it showed the level of the normal group. These results indicate that chronic cadmium poisoning in rats accelerates arachidonic acid metabolism Inhibition of arachidonic acid metabolism due to catechin supplementation, however, decreases platelet aggregation and inflammatory action. In conclusion, it would appear that green tea catechin supplementation in chronic cadmium-poisoned rats inhibits the arachidonic acid cascade by regulating the activity of phospholipase A2.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 17 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:956410 HCAPLUS
DOCUMENT NUMBER: 139:95041

TITLE: Effects of tanshinone I isolated from Salvia miltiorrhiza bunge on arachidonic acid metabolism and in vivo inflammatory responses
AUTHOR(S): Kim, Sung Young; Moon, Tae Cheol; **Chang, Hyeun Wook**; Son, Kun Ho; Kang, Sam Sik; Kim, Hyun Pyo
CORPORATE SOURCE: College of Pharmacy, Kangwon National University, Chunchon, 200-701, S. Korea
SOURCE: Phytotherapy Research (2002), 16(7), 616-620
CODEN: PHYREH; ISSN: 0951-418X
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Arachidonic acid (AA) mainly released from the cell membrane by phospholipase A2 (PLA2) is converted to eicosanoids by the action of cyclooxygenase (COX) and lipoxygenase (LO). In order to find the specific inhibitors of AA metabolism especially PLA2 and COX-2, 300 plant exts. were evaluated for their inhibitory activity on PGD2 production from cytokine-induced mouse bone marrow-derived mast cells in vitro. From this screening procedure, the methanol extract of Salvia miltiorrhiza was found to inhibit PGD2 production and the Et acetate subtraction gave the strongest inhibition of five subtractions tested. From this Et acetate subfraction, an activity-guided isolation finally gave tanshinone I as an active principle. This investigation deals with the effects of tanshinone I on AA metabolism from lipopolysaccharide (LPS)-induced RAW 264.7 cells and in vivo antiinflammatory activity. Tanshinone I inhibited PGE2 formation from LPS-induced RAW macrophages (IC50 = 38 μM). However, this compound did not affect COX-2 activity or COX-2 expression. Tanshinone I was found to be an inhibitor of type IIA human recombinant sPLA2 (IC50 =11 μM) and rabbit recombinant cPLA2 (IC50 = 82 μM). In addition, tanshinone I showed in vivo antiinflammatory activity in rat carrageenan-induced paw edema and adjuvant-induced **arthritis**.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 18 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:390202 HCAPLUS
DOCUMENT NUMBER: 137:304483
TITLE: Effects of ginkgetin from Ginkgo biloba leaves on cyclooxygenases and in vivo skin inflammation
AUTHOR(S): Kwak, Wie-Jong; Han, Chang Kyun; Son, Kun Ho; **Chang, Hyeun Wook**; Kang, Sam Sik; Park, Byoung Kyu; Kim, Hyun Pyo
CORPORATE SOURCE: SK Chemicals Ltd., Suwon, S. Korea
SOURCE: Planta Medica (2002), 68(4), 316-321
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Ginkgetin, a biflavone from Ginkgo biloba leaves, was previously reported to be a phospholipase A2 inhibitor and this compound showed the potent antiarthritic activity in rat adjuvant-induced **arthritis** as well as analgesic activity. This investigation was carried out to find effects on cyclooxygenase (COX)-1 and -2 including an in vivo effect. Ginkgetin (1-10 μM) and the biflavonoid mixture (10-50 μg/mL), mainly a 1:1 mixture of ginkgetin and isoginkgetin, from G. biloba leaves, inhibited production of prostaglandin E2 from lipopolysaccharide-induced RAW 264.7 cells. This inhibition was mediated, at least in part, by down-regulation of COX-2 expression, but not by direct inhibition of COX-1 or COX-2 activity. Down-regulation of COX-2 by ginkgetin was also proved in the dorsal skin of ICR mouse treated by 12-O-tetradecanoylphorbol 13-acetate

(TPA). At total doses of 1,000 μg/site on the dorsal skin (15 mm + 15 mm), ginkgetin inhibited prostaglandin E2 production by 65.6% along with a marked suppression of COX-2 induction. In addition, ginkgetin and the biflavonoid mixture (100-1,000 μg/ear) dose-dependently inhibited skin inflammation of croton oil induced ear edema in mice by topical application. The present study suggests that ginkgetin from G. biloba leaves down-regulates COX-2 induction in vivo and this down-regulating potential is associated with an anti-inflammatory activity against skin inflammatory responses.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 19 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:436547 HCAPLUS
DOCUMENT NUMBER: 131:82749
TITLE: Inhibition of rat adjuvant-induced **arthritis** by ginkgetin, a biflavone from Ginkgo biloba leaves
AUTHOR(S): Kim, Hee Kee; Son, Kun Ho; **Chang, Hyeun Wook**; Kang, Sam Sik; Kim, Hyun Pyo
CORPORATE SOURCE: College Pharmacy, Kangwon National Univ., Chunchon, 200, S. Korea
SOURCE: Planta Medica (1999), 65(5), 465-467
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Ginkgetin, a biflavone isolated from Ginkgo biloba leaves, was previously reported as an inhibitor of group II phospholipase A2. In this study, ginkgetin was evaluated for in vivo antiarthritic and analgesic activities. Ginkgetin (10-20 mg/kg/ day) strongly reduced arthritic inflammation in an animal model of rat adjuvant-induced **arthritis** (86% inhibition at 16 days at a dose of 20 mg/kg/day) via i.p. injection, while prednisolone (5 mg/kg/day) showed 79% reduction Histol. examination of the knee joints confirmed our findings. When analgesic activity was measured, ginkgetin showed a dose-dependent inhibition in an animal model of acetic acid-induced writhing. ED50 values for ginkgetin and indomethacin were 8.9 and 3.8 mg/kg, resp. All these results indicate that ginkgetin may be a potential antiarthritic agent having analgesic activity.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 20 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:196006 HCAPLUS
DOCUMENT NUMBER: 131:394
TITLE: Anti-inflammatory activity of the flavonoid components of Lonicera japonica
AUTHOR(S): Moon, Tae Chul; Park, Jeong Ok; Chung, Kwang Won; Son, Keun Ho; Kim, Hyun Pyo; Kang, Sam Sik; **Chang, Hyeun Wook**; Chung, Kyu Cham
CORPORATE SOURCE: Coll. Pharmacy, Yeungnam Univ., S. Korea
SOURCE: Yakhak Hoechi (1999), 43(1), 117-123
CODEN: YAHOA3; ISSN: 0513-4234
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: Korean
AB Because of the potent effects of lipid mediators such as prostaglandins (PGs), **leukotrienes** (LTs) and platelet-activating factor (PAF) on a variety of cells and tissues, they are considered as major contributors to the process leading to inflammation and allergy. To

pursue the mechanisms of anti-inflammatory activity of Lonicera japonica, we tested inhibitory effects of 7 flavonoids from Lonicera japonica on arachidonic acid cascade related enzymes, such as inflammatory phospholipase A2, cyclooxygenase-1 and 2, 5-lipoxygenase, in bone marrow derived mast cells (BMMC), and lyso PAF-acetyltransferase in rat spleen microsomes. Anti-inflammatory activities of Lonicera japonica are thought to be attributed at least in part to the inhibition of arachidonic acid cascade-related enzymes by flavonoids such as apigenin, luteolin and quercetin.

L37 ANSWER 21 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:539672 HCAPLUS
DOCUMENT NUMBER: 129:285741
TITLE: Amentoflavone, a plant biflavone: a new potential anti-inflammatory agent
AUTHOR(S): Kim, Hee Kee; Son, Kun Ho; **Chang, Hyeun Wook**; Kang, Sam Sik; Kim, Hyun Pyo
CORPORATE SOURCE: College of Pharmacy, Kangwon National Univ., Chunchon, 200-701, S. Korea
SOURCE: Archives of Pharmacal Research (1998), 21(4), 406-410
CODEN: APHRDQ; ISSN: 0253-6269
PUBLISHER: Pharmaceutical Society of Korea
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Biflavonoid is one of unique of naturally-occurring bioflavonoids. Certain biflavonoids, including amentoflavone (I), were previously reported to have inhibitory effect on group II phospholipase A2 activity. I was also found to inhibit arachidonate cyclooxygenase from guinea pig epidermis without affecting lipoxygenase. Here, the antiinflammatory and analgesic activities of I were evaluated. When I was administered i.p., it showed a potent antiinflammatory activity as determined by amelioration of croton oil-induced mouse ear edema. I also showed a potent antiinflammatory activity in the rat carrageenan paw edema model (ED50 = 42 mg/kg) compared to the activity of prednisolone (35 mg/kg) and indomethacin (10 mg/kg). However, I did not show a significant inhibitory activity against rat adjuvant-induced **arthritis**, a chronic inflammatory model. In addition, I was found to possess a potent analgesic activity in the acetic acid writhing test (ED50 = 9.6 mg/kg) compared to the activity of indomethacin (3.8 mg/kg). These results suggest that I may be a potential lead for a new type of antiinflammatory agents having dual inhibitory activity for group II phospholipase A2 and arachidonate cyclooxygenase.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L37 ANSWER 22 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:537975 HCAPLUS
DOCUMENT NUMBER: 129:131051
TITLE: Vitexicarpin, a flavonoid from the fruits of Vitex rotundifolia, inhibits mouse lymphocyte proliferation and growth of cell lines in vitro
AUTHOR(S): You, Keun Man; Son, Kun Ho; **Chang, Hyeun Wook**; Kang, Sam Sik; Kim, Hyun Pyo
CORPORATE SOURCE: College Pharmacy, Kangwon National University, Chunchon, 200, S. Korea
SOURCE: Planta Medica (1998), 64(6), 546-550
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Certain flavonoids having a C-2,3-double bond were reported to show an inhibitory activity against T-lymphocyte proliferation, but not against B-lymphocyte proliferation in vitro. In the course of these studies, vitexicarpin (3',5-dihydroxy-3,4',6,7-tetramethoxyflavone) isolated from the fruits of Vitex rotundifolia was found to show potent inhibition against lymphocyte proliferation. Vitexicarpin inhibited T-lymphocyte proliferation as well as B-lymphocyte proliferation at >0.1 μM. IC50's were 0.7 μM both for T- and B-cell proliferation. The inhibitory activity of vitexicarpin was reversible. Vitexicarpin also inhibited the growth of certain cancer cell lines, EL-4 and P815.9 (IC50 = 0.25-0.3 μM). These results suggest that vitexicarpin may be a potential therapeutic agent involved in inflammatory/immunoregulatory disorders such as rheumatoid **arthritis** and lymphomas.

L37 ANSWER 23 OF 23 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:512922 HCAPLUS
DOCUMENT NUMBER: 111:112922
TITLE: Characteristics and pathophysiological roles of extracellular phospholipase A2 in inflamed sites
AUTHOR(S): Kudo, I.; **Chang, H. W.**; Hara, S.; Murakami, M.; Inoue, Keizo
CORPORATE SOURCE: Fac. Pharm. Sci., Univ. Tokyo, Tokyo, 113, Japan
SOURCE: Dermatologica (1989), Volume Date 1988, 179(Suppl. 1), 72-6
CODEN: DERAAC; ISSN: 0011-9075
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 25 refs., on extracellular phospholipase A2 in inflamed sites of human and rat. Phospholipase A2 from peritoneal exudates of rat treated with casein, human synovial fluids in rheumatoid **arthritis**, and secretions from activated platelets of rat and rabbit are discussed.

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